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Article index Volumes 144–152

VOL. 144, NOS. 1–2 — 2 JANUARY 1998

Role of organic matter and sulphate-reducing bacteria for metal sulphide precipitation in the Bahloul Formation at the Bou Grine Zn/Pb deposit (Tunisia)
A. Bechtel, M. Pervaz and W. Püttmann 1
Nb/Ta fractionation in a Cambrian arc/back arc system, New Zealand: source constraints and application of refined ICPMS techniques
C. Münker 23
Thermal-neutron intensities in soils irradiated by fast neutrons from point sources
S.L. Shue, R.E. Faw and J.K. Shultis 47
Strontium isotope geochemistry of anhydrites and calcite pseudomorphs after anhydrite from Palaeozoic formations in Belgium
L. Dejonghe, D. Demaiffe and D. Weis 63
Precise and rapid determination of $^{238}U/^{235}U$ and uranium concentration in soil samples using thermal ionisation mass spectrometry
R.N. Taylor, I.W. Croudace, P.E. Warwick and S.J. Dee 73
Natural and anthropogenic schwertmannites from Towada-Hachimantai National Park, Honshu, Japan
C.W. Childs, K. Inoue and C. Mizota 81
Surface chemistry and morphology of poorly crystalline iron sulfides precipitated in media containing sulfate-reducing bacteria
R.B. Herbert Jr., S.G. Benner, A.R. Pratt and D.W. Blowes 87
Variations in REE and Sr-isotope chemistry of carbonate gangue, Castellanos Zn–Pb deposit, Cuba
J.F. Davies, S.A. Prevec, R.E. Whitehead and S.E. Jackson 97
Absorption correction procedures for quantitative analysis of fluid inclusions using synchrotron radiation X-ray fluorescence
P. Philippot, B. Menez, P. Chevallier, F. Gibert, F. Legrand and P. Populus 119
Assessment of the precision and accuracy of lead-isotope ratios measured by TIMS for geochemical applications: example of massive sulphide deposits (Rio Tinto, Spain)
C. Pomiès, A. Cocherie, C. Guerrot, E. Marcoux and J. Lancelot 135
Isotopic spikes from tropical cyclones in surface waters: Opportunities in hydrology and paleoclimatology
J.R. Lawrence 151

VOL. 144, NOS. 3–4 — 26 FEBRUARY 1998

A comparison of the thermodynamics of metal adsorption onto two common bacteria
C.J. Daughney, J.B. Fein and N. Yee 161
Oxygen isotope variations in Lau Basin lavas
C.G. Macpherson and D.P. Mattey 177
The rapid heating, defocused beam technique: a CO_2-laser-based method for highly precise and accurate determination of $\delta^{18}O$ values of quartz
M.J. Spicuzza, J.W. Valley, M.J. Kohn, J.P. Girard and A.M. Fouillac 195
The significance of Himalayan rivers for silicate weathering rates: evidence from the Bhote Kosi tributary
N. Harris, M. Bickle, H. Chapman, I. Fairchild and J. Bunbury 205
Li, B-rich Rhaetian metabauxite, Tuscany, Italy: reworking of older bauxites and igneous rocks
M. Franceschelli, M. Puxeddu and I. Memmi 221
Rare-earth geochemistry of 'old' phosphorites and probability of syngenetic precipitation and accumulation of phosphate
A.V. Ilyin 243
Precambrian ammonium biogeochemistry: a study of the Moine metasediments, Scotland
S.R. Boyd and P. Philippot 257

PII: S0009-2541(99)00016-9

In-situ osmium isotope ratio analyses of iridosmines by laser ablation–multiple collector–inductively coupled plasma mass spectrometry
T. Hirata, M. Hattori and T. Tanaka 269
Geochemical and isotopic (Sr, Nd, Pb) evidence for plume–lithosphere interactions in the genesis of Grande Comore magmas (Indian Ocean)
C. Deniel 281
SIMS analysis of U–Pb isotopes in monazite: matrix effects
X.-K. Zhu, R.K. O'Nions and A.J. Gibb 305
Uranium-series radionuclide and element migration around the Sanerliu granite-hosted uranium deposit in southern China as a natural analogue for high-level radwaste repositories
M.Z. Min, J.P. Zhai and C.Q. Fang 313
$^{226}Ra/Ba$ ratios for dating Holocene biogenic carbonates in the Southern Ocean: preliminary evidence from Antarctic coastal mollusc shells
P.A. Berkman and T.-L. Ku 331

VOL. 145, NOS. 1–2 6 MARCH 1998

Metamorphic overprinting of Sm–Nd isotopic systems in volcanic rocks: the Telemark Supergroup, southern Norway
T.S. Brewer and J.F. Menuge 1
Geochemical and isotopic characteristics of different types of anorthosite in the Namaqua mobile belt, South Africa
G.J. Geringer, A.E. Schoch, M. Sukhanov and D. Zhuravlev 17
Spatial and temporal variations in early diagenetic organic matter oxidation pathways in Lower Jurassic mudstones of eastern England
K.G. Taylor 47
Tracing the source of gypsum in New Caledonian soils by REE contents and S–Sr isotopic compositions
T. Toulkeridis, P. Podwojewski and N. Clauer 61
Temperature–carbon dioxide partial pressure trends in confined aquifers
A. Coudrain-Ribstein, P. Gouze and G. de Marsily 73
High-yield lithium separation and the precise isotopic analysis for natural rock and aqueous samples
T. Moriguti and E. Nakamura 91
Contrasting origin of palaeofluids in a strike-slip fault system
P. Muchez and M. Sintubin 105
Intercalibration of standards, absolute ages and uncertainties in $^{40}Ar/^{39}Ar$ dating
P.R. Renne, C.C. Swisher, A.L. Deino, D.B. Karner, T.L. Owens and D.J. DePaolo 117

VOL. 145, NOS. 3–4 15 APRIL 1998

Geochemical Earth Reference Model (GERM): description of the initiative
H. Staudigel, F. Albarède, J. Blichert-Toft, J. Edmond, B. McDonough, S.B. Jacobsen, R. Keeling, C.H. Langmuir, R.L. Nielsen, T. Plank, R. Rudnick, H.F. Shaw, S. Shirey, J. Veizer and W. White 153
Fundamental aspects of quantitative models for geochemical cycles
A.C. Lasaga and R.A. Berner 161
Isotopic constraints on the Cenozoic evolution of the carbon cycle
L.M. François and Y. Goddéris 177
Metamorphic CO_2 degassing from orogenic belts
D.M. Kerrick and K. Caldeira 213
CO_2 fluxes from mid-ocean ridges, arcs and plumes
B. Marty and I.N. Tolstikhin 233
The hydrogen isotope composition of seawater and the global water cycle
C. Lécuyer, P. Gillet and F. Robert 249
The oxygen isotopic composition of the oceans, sediments and the seafloor
K. Muehlenbachs 263
Oxygen isotopic fluxes associated with high-temperature processes in the rift zones of Iceland
B. Gautason and K. Muehlenbachs 275
Detrital sediment fluxes from continents to oceans
W.W. Hay 287

The chemical composition of subducting sediment and its consequences for the crust and mantle
T. Plank and C.H. Langmuir 325
Thermal structure, thickness and composition of continental lithosphere
R.L. Rudnick, W.F. McDonough and R.J. O'Connell 395
Time-dependent models of U–Th–He and K–Ar evolution and the layering of mantle convection
F. Albarède 413
Thermal and rare gas evolution of the mantle
J. Phipps Morgan 431
Hf isotope constraints on mantle evolution
V.J.M. Salters and W.M. White 447
Reconciling siderophile element data in the Earth and Moon, W isotopes and the upper lunar age limit in a simple model of homogeneous accretion
J.D. Kramers 461
Topography: a robust constraint on mantle fluxes
G.F. Davies 479

VOL. 146, NOS. 1–2 25 APRIL 1998

Organic geochemistry of the San Vicente zinc–lead district, eastern Pucará Basin, Peru
J.E. Spangenberg and S.A. Macko 1
Geochronology of the Jack Hills detrital zircons by precise U–Pb isotope dilution analysis of crystal fragments
Y.V. Amelin 25
Variability in ostracod partition coefficients *D*(Sr) and *D*(Mg). Implications for lacustrine palaeoenvironmental reconstructions
G. Wansard, P. De Deckker and R. Julià 39
Helium and Argon isotope systematics in fluid inclusions of Machangqing copper deposit in west Yunnan province, China
R. Hu, P.G. Burnard, G. Turner and X. Bi 55
Electron microprobe dating of monazites from high-grade gneisses and pegmatites of the Kerala Khondalite Belt, southern India
I. Braun, J.-M. Montel and C. Nicollet 65
Stable isotope chemistry of gaylussite and nahcolite from the deposits of the crater lake at Malha, northern Sudan
F. Mees, E. Reyes and E. Keppens 87
Dynamic double collector measurement with cup efficiency factor determination
I. Wendt and G. Haase 99

VOL. 146, NOS. 3–4 5 MAY 1998

Oxygen isotope thermometry of Brazilian potassic volcanic rocks of kamafugitic affinities
P.B.A. Sgarbi, R.N. Clayton, T.K. Mayeda and J.C. Gaspar 115
Sulfur isotope fractionation during experimental precipitation of iron(II) and manganese(II) sulfide at room temperature
M.E. Böttcher, A.M. Smock and H. Cypionka 127
The evolution of the Lorraine evaporite basin: implications for the chemical and isotope composition of the Triassic ocean
I. Fanlo and C. Ayora 135
Speciation and isotopic composition of sedimentary sulfur in the Everglades, Florida, USA
A.L. Bates, E.C. Spiker and C.W. Holmes 155
Prediction of pH in natural hydrothermal fluids at elevated P–T conditions
S.J. Roberts 171
Importance of late-magmatic and hydrothermal fluids on the Sm–Nd isotope mineral systematics of hypersolvus granites
F. Poitrasson, J.-L. Paquette, J.-M. Montel, C. Pin and J.-L. Duthou 187
He, Ar and C isotopes in coated and polycrystalline diamonds
R. Burgess, L.H. Johnson, D.P. Mattey, J.W. Harris and G. Turner 205
Temporal trends in nitrogen isotope values of nitrate leaching from an agricultural soil
N.E. Ostrom, K.E. Knoke, L.O. Hedin, G.P. Robertson and A.J.M. Smucker 219

VOL. 147, NOS. 1–2 15 MAY 1998

Accretion and differentiation of carbon in the early Earth
T.N. Tingle 3

The birth of the Earth's atmosphere: the behaviour and fate of its major elements
M. Javoy 11
The evolution of terrestrial volatiles: a view from helium, neon, argon and nitrogen isotope modelling
I.N. Tolstikhin and B. Marty 27
Helium–neon systematics and the structure of the mantle
M. Moreira and C.J. Allègre 53
Noble gas signatures in the Earth's interior-coupled or decoupled behaviour among each isotope systematics and problems related to their implication
I. Kaneoka 61
Mantle-derived ^{40}Ar in mid-ocean ridge hydrothermal fluids: implications for the source of volatiles and mantle degassing rates
F.M. Stuart and G. Turner 77
Graphite-melt equilibria during mantle melting: constraints on CO_2 in MORB magmas and the carbon content of the mantle
J.R. Holloway 89
Multiple fluid pulses in a Samoan harzburgite
P.G. Burnard, K.A. Farley and G. Turner 99
A melt and fluid inclusion study of the gas phase at Piton de la Fournaise volcano (Réunion Island)
H. Bureau, F. Pineau, N. Métrich, M.P. Semet and M. Javoy 115
The contribution of Earth degassing to the atmospheric sulfur budget
H.-F. Graf, B. Langmann and J. Feichter 131
Subduction-related diamonds? — The evidence for a mantle-derived origin from coupled $\delta^{13}C$–$\delta^{15}N$ determinations
P. Cartigny, J.W. Harris, D. Phillips, M. Girard and M. Javoy 147
The OH content of pyrope at high pressure
A.C. Withers, B.J. Wood and M.R. Carroll 161
Water solubility and D/H fractionation in the system basaltic andesite–H_2O at 1250°C and between 0.5 and 3 kbars
F. Pineau, S. Shilobreeva, A. Kadik and M. Javoy 173
Preliminary UVLAMP determinations of argon partition coefficients for olivine and clinopyroxene grown from silicate melts
R.A. Brooker, J.-A. Wartho, M.R. Carroll, S.P. Kelley and D.S. Draper 185

VOL. 147, NOS. 3–4 25 MAY 1998

The distribution of iodine in the earth's crust
Y. Muramatsu and K. Hans Wedepohl 201
Chemistry of surface sediment along a north–south transect across the equator in the Central Indian Basin: an assessment of biogenic and detrital influences on elemental burial on the seafloor
V.K. Banakar, G. Parthiban, J.N. Pattan and P. Jauhari 217
Diopside and anthophyllite dissolution at 25° and 90°C and acid pH
Y. Chen and S.L. Brantley 233
Carbon isotopic and molecular constraints on the formation and the expulsion of thermogenic hydrocarbon gases
F. Lorant, A. Prinzhofer, F. Behar and A.-Y. Huc 249
Geochemistry of rare elements in waters and sediments of alkaline lakes in the Sasykkul depression, East Pamirs
N.I. Volkova 265
^{15}N enrichment in agricultural catchments: field patterns and applications to tracking Atlantic salmon (*Salmo salar*)
R.R. Harrington, B.P. Kennedy, C.P. Chamberlain, J.D. Blum and C.L. Folt 281
Changes in the $^{18}O/^{16}O$ ratios of fluids as evidence for different metamorphic episodes in high grade gneisses from the Konovalov Mountains area (Rayner Complex, East Antarctica)
D.P. Krylov, S. Hoernes and D. Bridgwater 295
Diagenetic Models and Their Implementation: Modelling Transport and Reactions in Aquatic Sediments, by Bernard P. Boudreau
J.F. Gaillard 313

VOL. 148, NOS. 1–2 5 JUNE 1998

Ettringite solubility and geochemistry of the $Ca(OH)_2$–$Al_2(SO_4)_3$–H_2O system at 1 atm pressure and 298 K
S.C.B. Myneni, S.J. Traina and T.J. Logan 1
Plutonic lithics in ignimbrites of Taupo Volcanic Zone, New Zealand: sources and conditions of crystallisation
S.J.A. Brown, R.M. Burt, J.W. Cole, S.J.P. Krippner, R.C. Price and I. Cartwright 21
High-precision $^{40}Ar/^{39}Ar$ dating of two consecutive hydrothermal events in the Chuquicamata porphyry copper system, Chile
P. Reynolds, C. Ravenhurst, M. Zentilli and D. Lindsay 45

2000-Ma sulphide concretions from the 'Productive' Formation of the Pechenga Greenstone Belt, NW Russia: genetic history based on morphological and isotopic evidence
V.A. Melezhik, L.N. Grinenko and A.E. Fallick 61
Uncertainties on lead isotope analyses: deconvolution in the double-spike method
R. Powell, J. Woodhead and J. Hergt 95
Modeling of the temperature sensitivity of the apatite (U–Th)/He thermochronometer
R.A. Wolf, K.A. Farley and D.M. Kass 105

VOL. 148, NOS. 3–4 15 JUNE 1998

Geochemistry of post-Acadian, Carboniferous continental intraplate basalts from the Maritimes Basin, Magdalen Islands, Québec, Canada
M.R. La Flèche, G. Camiré and G.A. Jenner 115
Physical and chemical weathering rates and CO_2 consumption in a tropical lateritic environment: the upper Niger basin
J.-L. Boeglin and J.-L. Probst 137
Adsorption of Pb(II) and benzenecarboxylates onto corundum
J.-F. Boily and J.B. Fein 157
Riverine erosion rates on Sao Miguel volcanic island, Azores archipelago
P. Louvat and C.J. Allègre 177
The Marinkas Quellen Carbonatite Complex, southern Namibia: carbonatite magmatism with an uncontaminated depleted mantle signature in a continental setting
R.H. Smithies and J.S. Marsh 201
Extreme Nd isotope heterogeneity in the early Archean —fact or fiction? Case histories from northern Canada and West Greenland —Comment
V.C. Bennett and A.P. Nutman 213
Extreme Nd-isotope heterogeneity in the early Archaean —fact or fiction? Case histories from northern Canada and West Greenland —Reply
B.S. Kamber, S. Moorbath and M.J. Whitehouse 219

VOL. 149, NOS. 1–2 10 JULY 1998

Strontium and oxygen isotopic constraints on fluid mixing, alteration and mineralization in the TAG hydrothermal deposit
D.A.H. Teagle, J.C. Alt, H. Chiba, S.E. Humphris and A.N. Halliday 1
Contribution of dissolved organic species to the carbon and energy budgets of hydrate bearing deep sea sediments (Ocean Drilling Program Site 997 Blake Ridge)
P.K. Egeberg and T. Barth 25
Aeolian contribution to strontium and strontium isotope variations in a Tasmanian speleothem
A. Goede, M. McCulloch, F. McDermott and C. Hawkesworth 37
The effect of crustal contamination on ultrapotassic magmas with lamproitic affinity: mineralogical, geochemical and isotope data from the Torre Alfina lavas and xenoliths, Central Italy
S. Conticelli 51
Experimental determination of REE distributions between monazite and xenotime: potential for temperature-calibrated geochronology
G. Andrehs and W. Heinrich 83
Comparison of experimental techniques to increase the number of measurable confined fission tracks in zircon
R. Yamada, T. Yoshioka, K. Watanabe, T. Tagami, H. Nakamura, T. Hashimoto and S. Nishimura 99
The radial distribution of implanted and trapped ^{4}He in single diamond crystals and implications for the origin of carbonado
D.A. Shelkov, A.B. Verchovsky, H.J. Milledge and C.T. Pillinger 109
Positioning the titanite fission-track partial annealing zone
D.A. Coyle and G.A. Wagner 117
Review of occurrences and carbon isotope geochemistry of oxalate minerals: implications for the origin and fate of oxalate in diagenetic and hydrothermal fluids
B.A. Hofmann and S.M. Bernasconi 127

VOL. 149, NOS. 3–4 31 JULY 1998

Redox stratification and heavy metal partitioning in *Avicennia*-dominated mangrove sediments: a geochemical model
M.W. Clark, D. McConchie, D.W. Lewis and P. Saenger 147

Helium isotope evidence for off-axis degassing of the Icelandic hotspot
D.R. Hilton, K. Gronvold, A.E. Sveinbjornsdottir and K. Hammerschmidt 173
Penecontemporaneous diagenesis in continental saline sediments: bloeditization in Quero playa lake (La Mancha, Central Spain)
S. Sánchez-Moral, S. Ordóñez, M.A. García del Cura, M. Hoyos and J.C. Cañaveras 189
High precision Hf isotope measurements of MORB and OIB by thermal ionisation mass spectrometry: insights into the depleted mantle
G.M. Nowell, P.D. Kempton, S.R. Noble, J.G. Fitton, A.D. Saunders, J.J. Mahoney and R.N. Taylor 211
Modelling isotope fractionation during primary cracking of natural gas: a reaction kinetic approach
B. Cramer, B.M. Krooss and R. Littke 235
Isotopic identification of CO_2 from a deep origin in thermomineral waters of southeastern Spain
J.C. Cerón, A. Pulido-Bosch and C. Sanz de Galdeano 251
Corrigendum to "Intercalibration of standards, absolute ages and uncertainties in $^{40}Ar/^{39}Ar$ dating" [Chemical Geology 145 (1998) 117–152]
P.R. Renne, C.C. Swisher, A.L. Deino, D.B. Karner, T.L. Owens and D.J. DePaolo 259

VOL. 150, NOS. 1–2 24 AUGUST 1998

Modeling fluid–rock interaction during greisenization at the East Kemptville tin deposit: implications for mineralization
W.E. Halter, A.E. Williams-Jones and D.J. Kontak 1
Initial Pb of the Amîtsoq gneiss revisited: implication for the timing of early Archaean crustal evolution in West Greenland
B.S. Kamber and S. Moorbath 19
Geochemistry and provenance of the Altendorf feldspathic sandstone in the Middle Bunter of the Thuringian basin (Germany)
J. Götze 43
Geochemistry and water dynamics of a medium-sized watershed: the Hérault, southern France. 1. Organisation of the different water reservoirs as constrained by Sr isotopes, major, and trace elements
E. Petelet, J.-M. Luck, D. Ben Othman, P. Negrel and L. Aquilina 63
Concentrations of rare earth elements in silicate rocks of the Lower, Critical and Main Zones of the Bushveld Complex
W.D. Maier and S.-J. Barnes 85
Pb diffusion in clinopyroxene
D.J. Cherniak 105
Tertiary mineralization and magmatism, East Greenland: lead isotope evidence for remobilization of continental crust
S.M. Jensen 119
Cross calibration of K–Ar standard minerals using an unspiked Ar measurement technique
S. Charbit, H. Guillou and L. Turpin 147
Low $\delta^{18}O$, ultrahigh-*P* garnet-bearing mafic and ultramafic rocks from Dabie Shan, China
R.Y. Zhang, D. Rumble III, J.G. Liou and Q.C. Wang 161
Helium degassing related to the Kobe earthquake
Y. Sano, N. Takahata, G. Igarashi, N. Koizumi and N.C. Sturchio 171
Semi-quantitative determination of apatite anion composition for fission-track analysis using infra-red microspectroscopy
R. Siddall and A.J. Hurford 181
Sulfur isotopic analysis of 3–10 micromole samples of SO_2 from sulfides, sulfates, and whole rocks using conventional combustion and mass spectrometric techniques
Y.-R. Park and E.M. Ripley 191

VOL. 150, NOS. 3–4 SEPTEMBER 1998

Study of physical and chemical properties of vitrinites. Inferences on depositional and coalification controls
A. Jiménez, M.J. Iglesias, F. Laggoun-Défarge and I. Suárez-Ruiz 197
Paleotemperatures from fluid inclusions in halite: method verification and a 100,000 year paleotemperature record, Death Valley, CA
T.K. Lowenstein, J. Li and C.B. Brown 223
Persistence of pre-metamorphic C and O isotopic signatures in marbles subject to Pan-African granulite-facies metamorphism and U–Th mineralization (Tranomaro, Southeast Madagascar)
P. Boulvais, S. Fourcade, G. Gruau, B. Moine and M. Cuney 247
Geochemistry and water dynamics. II. Trace metals and Pb–Sr isotopes as tracers of water movements and erosion processes
J.-M. Luck and D. Ben Othman 263
Principles and Applications of Geochemistry
C.D. Frost 283

The effect of vapor pressure on the rate of isotopic exchange between water and water vapor
N.L. Ingraham and R.E. Criss 287
Carbonatation processes at the El Berrocal natural analogue granitic system (Spain): inferences from mineralogical and stable isotope studies
E. Reyes, L. Pérez del Villar, A. Delgado, G. Cortecci, R. Núñez, M. Pelayo and J.S. Cózar 293
Investigation of the ingrowth of radioactive daughters of ^{238}U in Mediterranean sapropels as a potential dating tool
S. Severmann and J. Thomson 317
Carbon isotope fractionation between dissolved and gaseous carbon dioxide
J. Szaran 331

VOL. 151, NOS. 1–4 1 OCTOBER 1998

Geochemistry of crustal fluids: a Tyrolean perspective
K.V. Ragnarsdottir and E.H. Oelkers 1
Molecular dynamics simulations of aqueous NaCl solutions at high pressures and temperatures
J.P. Brodholt 11
An EXAFS spectroscopic study of aqueous antimony(III)-chloride complexation at temperatures from 25 to 250°C
E.H. Oelkers, D.M. Sherman, K.V. Ragnarsdottir and C. Collins 21
Aqueous speciation of yttrium at temperatures from 25 to 340°C at P_{sat}: an in situ EXAFS study
K.V. Ragnarsdottir, E.H. Oelkers, D.M. Sherman and C.R. Collins 29
Experimental determination of stability constants of aqueous complexes
L.-O. Öhman 41
Experimental investigation of aluminum-silica aqueous complexing at 300°C
S. Salvi, G.S. Pokrovski and J. Schott 51
Experimental determination of aqueous sodium-acetate dissociation constants at temperatures from 20 to 240°C
P. Fournier, E.H. Oelkers, R. Gout and G. Pokrovski 69
N-compound reduction and actinide immobilisation in surficial fluids by Fe(II): the surface $\equiv Fe^{III}OFe^{II}OH^{\circ}$ species, as major reductant
L. Charlet, E. Silvester and E. Liger 85
An extended X-ray absorption fine structure spectroscopy investigation of cadmium sorption on cryptomelane (KMn_8O_{16})
S.R. Randall, D.M. Sherman and K.V. Ragnarsdottir 95
Reactive transport of uranyl in a goethite column: an experimental and modelling study
U. Gabriel, J.-P. Gaudet, L. Spadini and L. Charlet 107
Sorption of uranium(VI) onto phyllite
T. Arnold, T. Zorn, G. Bernhard and H. Nitsche 129
Mineral precipitation and dissolution in aqueous solution: in-situ microscopic observations on barite (001) with atomic force microscopy
D. Bosbach, C. Hall and A. Putnis 143
Weathering detected by Raman spectroscopy using Al-ordering in albite
P. Frogner, C. Broman and S. Lindblom 161
Hornblende dissolution kinetics at 25°C
P. Frogner and P. Schweda 169
Dissolution kinetics and alteration of epidote in acidic solutions at 25°C
B.E. Kalinowski, C. Faith-Ell and P. Schweda 181
An experimental study of calcite and limestone dissolution rates as a function of pH from −1 to 3 and temperature from 25 to 80°C
M. Alkattan, E.H. Oelkers, J.-L. Dandurand and J. Schott 199
The dissolution of apatite in the presence of aqueous metal cations at pH 2–7
E. Valsami-Jones, K.V. Ragnarsdottir, A. Putnis, D. Bosbach, A.J. Kemp and G. Cressey 215
Does organic acid adsorption affect alkali-feldspar dissolution rates?
E.H. Oelkers and J. Schott 235
General implications of aluminium speciation-dependent kinetic dissolution rate law in water–rock modelling
F. Gérard, B. Fritz, A. Clément and J.-L. Crovisier 247
Catchment-scale coupling between pyrite oxidation and calcite weathering
D.J. Hercod, P.V. Brady and R.T. Gregory 259
Estimation of the concentrations of trace metals in natural systemsThe application of codissolution and coprecipitation approaches to El Berrocal (Spain) and Poços de Caldas (Brazil)
J. Bruno, L. Duro, J. de Pablo, I. Casas, C. Ayora, J. Delgado, M.J. Gimeno, J. Peña, C. Linklater, L. Pérez del Villar and P. Gómez 277

Geochemistry of low-temperature water–rock interaction: evidence from natural waters, andesite, and iron-oxyhydroxide precipitates at Nishiki-numa iron-spring, Hokkaido, Japan
M. Bau, A. Usui, B. Pracejus, N. Mita, Y. Kanai, W. Irber and P. Dulski 293
Rare earth element mobility in the oceanic lower sheeted dyke complex: evidence from geochemical data and leaching experiments
W. Bach and W. Irber 309
Standard thermodynamic properties and heat capacity equations of rare earth hydroxides: II. Ce(III)-, Pr-, Sm-, Eu(III)-, Gd-, Tb-, Dy-, Ho-, Er-, Tm-, Yb-, and Y-hydroxides. Comparison of thermochemical and solubility data
I.I. Diakonov, K.V. Ragnarsdottir and B.R. Tagirov 327
Experimental study of $La(OH)_3$ and $Gd(OH)_3$ solubilities (25 to 150°C), and La–acetate complexing (25 to 80°C)
S. Deberdt, S. Castet, J.-L. Dandurand, J.-C. Harrichoury and I. Louiset 349
Petrologic evidence for K-feldspar metasomatism in granulite facies rocks
D.E. Harlov, E.C. Hansen and C. Bigler 373

VOL. 152, NOS. 1–2 26 OCTOBER 1998

Variability of isotope compositions in modern and fossil organic matter
S.A. Macko, M.H. Engel and K. Freeman 1
Patterns in N dynamics and N isotopes during primary succession in Glacier Bay, Alaska
E.A. Hobbie, S.A. Macko and H.H. Shugart 3
The origin and cycling of particulate and sedimentary organic matter and nitrate in Lake Superior
N.E. Ostrom, D.T. Long, E.M. Bell and T. Beals 13
Stable carbon isotope ratios of fatty acids in seagrass and redhead ducks
B.T. Hammer, M.L. Fogel and T.C. Hoering 29
$\delta^{13}C$ values of polycyclic aromatic hydrocarbons collected from two creosote-contaminated sites
B.T. Hammer, C.A. Kelley, R.B. Coffin, L.A. Cifuentes and J.G. Mueller 43
Secular, episodic changes in stable carbon isotope composition of crude oils
V.E. Andrusevich, M.H. Engel, J.E. Zumberge and L.A. Brothers 59
Carbon isotopic comparisons of oil products used in the developmental history of Alaska
K.A. Kvenvolden, P.R. Carlson, A. Warden and C.N. Threlkeld 73
Hydrogen isotope exchange in thermally stressed cellulose
R.V. Krishnamurthy and M. Machavaram 85
Variability in oxygen isotope compositions of herbivore teeth: reflections of seasonality or developmental physiology?
M.J. Kohn, M.J. Schoeninger and J.W. Valley 97
$^{13}C/^{12}C$ composition of marine dissolved organic carbon
B. Fry, C.S. Hopkinson Jr., A. Nolin and S.C. Wainright 113
The isotopic ecology of late Pleistocene mammals in North America. Part 1. Florida
P.L. Koch, K.A. Hoppe and S.D. Webb 119
The $\delta^{13}C$ of biogenic methane in marine sediments: the influence of C_{org} deposition rate
N. Blair 139
Variability of stable carbon isotopic compositions in individual fatty acids from combustion of C_4 and C_3 plants: implications for biomass burning
D.C. Ballentine, S.A. Macko and V.C. Turekian 151
Changes in the trophic state of Lake Erie: discordance between molecular $\delta^{13}C$ and bulk $\delta^{13}C$ sedimentary records
P.H. Ostrom, N.E. Ostrom, J. Henry, B.J. Eadie, P.A. Meyers and J.A. Robbins 163
Causes of bulk carbon and nitrogen isotopic fractionations in the products of vegetation burns: laboratory studies
V.C. Turekian, S. Macko, D. Ballentine, R.J. Swap and M. Garstang 181
Variations in $^{129}I/^{127}I$ ratios in recent marine sediments: evidence for a fossil organic component
J.E. Moran, U. Fehn and R.T.D. Teng 193
Stable isotopic analysis of individual carbohydrates by gas chromatographic/combustion/isotope ratio mass spectrometry
S.A. Macko, M. Ryan and M.H. Engel 205

VOL. 152, NOS. 3–4 16 NOVEMBER 1998

Raman spectra of potassium carbonate and bicarbonate aqueous fluids at elevated temperatures and pressures: comparison with theoretical simulations
J.D. Frantz 211

The thermal and cementation histories of a sandstone petroleum reservoir, Elk Hills, California. Part 1: $^{40}Ar/^{39}Ar$ thermal history results
K.I. Mahon, T.M. Harrison and M. Grove 227
The thermal and cementation histories of a sandstone petroleum reservoir, Elk Hills, California. Part 2: in situ oxygen and carbon isotopic results
K.I. Mahon, T.M. Harrison and K.D. McKeegan 257
Organic carbon accumulation and preservation in surface sediments on the Peru margin
M.A. Arthur, W.E. Dean and K. Laarkamp 273
Sediment chemistry and magnetic properties in an anomalously reducing core from the eastern Mediterranean Sea
H.F. Passier, M.J. Dekkers and G.J. de Lange 287
An automated system for hydrogen isotope analysis of water
B.H. Vaughn, J.W.C. White, M. Delmotte, M. Trolier, O. Cattani and M. Stievenard. 309
Comparison of two stable hydrogen isotope-ratio measurement techniques on Antarctic surface-water and ice samples
J.A. Hopple, J.E. Hannon and T.B. Coplen 321
Construction of the Cambrian and Ordovician seawater $^{87}Sr/^{86}Sr$ curve
R.E. Denison, R.B. Koepnick, W.H. Burke and E.A. Hetherington 325

ELSEVIER

Chemical Geology 155 (1999) 351–359

CHEMICAL GEOLOGY
INCLUDING ISOTOPE GEOSCIENCE

Author index Volumes 144–152

Albarède, F., Time-dependent models of U–Th–He and K–Ar evolution and the layering of mantle convection, 145 (1998) 413
Albarède, F., see Staudigel, H., 145 (1998) 153
Alkattan, M., E.H. Oelkers, J.-L. Dandurand and J. Schott, An experimental study of calcite and limestone dissolution rates as a function of pH from −1 to 3 and temperature from 25 to 80°C, 151 (1998) 199
Allègre, C.J., see Moreira, M., 147 (1998) 53
Allègre, C.J., see Louvat, P., 148 (1998) 177
Alt, J.C., see Teagle, D.A.H., 149 (1998) 1
Amelin, Y.V., Geochronology of the Jack Hills detrital zircons by precise U–Pb isotope dilution analysis of crystal fragments, 146 (1998) 25
Andrehs, G. and W. Heinrich, Experimental determination of REE distributions between monazite and xenotime: potential for temperature-calibrated geochronology, 149 (1998) 83
Andrusevich, V.E., M.H. Engel, J.E. Zumberge and L.A. Brothers, Secular, episodic changes in stable carbon isotope composition of crude oils, 152 (1998) 59
Aquilina, L., see Petelet, E., 150 (1998) 63
Arnold, T., T. Zorn, G. Bernhard and H. Nitsche, Sorption of uranium(VI) onto phyllite, 151 (1998) 129
Arthur, M.A., W.E. Dean and K. Laarkamp, Organic carbon accumulation and preservation in surface sediments on the Peru margin, 152 (1998) 273
Ayora, C., see Fanlo, I., 146 (1998) 135
Ayora, C., see Bruno, J., 151 (1998) 277

Bach, W. and W. Irber, Rare earth element mobility in the oceanic lower sheeted dyke complex: evidence from geochemical data and leaching experiments, 151 (1998) 309
Ballentine, D., see Turekian, V.C., 152 (1998) 181
Ballentine, D.C., S.A. Macko and V.C. Turekian, Variability of stable carbon isotopic compositions in individual fatty acids from combustion of C_4 and C_3 plants: implications for biomass burning, 152 (1998) 151
Banakar, V.K., G. Parthiban, J.N. Pattan and P. Jauhari, Chemistry of surface sediment along a north–south transect across the equator in the Central Indian Basin: an assessment of biogenic and detrital influences on elemental burial on the seafloor, 147 (1998) 217
Barnes, S.-J., see Maier, W.D., 150 (1998) 85
Barth, T., see Egeberg, P.K., 149 (1998) 25
Bates, A.L., E.C. Spiker and C.W. Holmes, Speciation and isotopic composition of sedimentary sulfur in the Everglades, Florida, USA, 146 (1998) 155
Bau, M., A. Usui, B. Pracejus, N. Mita, Y. Kanai, W. Irber and P. Dulski, Geochemistry of low-temperature water–rock interaction: evidence from natural waters, andesite, and iron-oxyhydroxide precipitates at Nishiki-numa iron-spring, Hokkaido, Japan, 151 (1998) 293
Beals, T., see Ostrom, N.E., 152 (1998) 13
Bechtel, A., M. Pervaz and W. Püttmann, Role of organic matter and sulphate-reducing bacteria for metal sulphide precipitation in the Bahloul Formation at the Bou Grine Zn/Pb deposit (Tunisia), 144 (1998) 1
Behar, F., see Lorant, F., 147 (1998) 249
Bell, E.M., see Ostrom, N.E., 152 (1998) 13
Benner, S.G., see Herbert Jr., R.B., 144 (1998) 87
Bennett, V.C. and A.P. Nutman, Extreme Nd isotope heterogeneity in the early Archean —fact or fiction? Case histories from northern Canada and West Greenland—Comment, 148 (1998) 213
Ben Othman, D., see Petelet, E., 150 (1998) 63
Ben Othman, D., see Luck, J.-M., 150 (1998) 263
Berkman, P.A. and T.-L. Ku, $^{226}Ra/Ba$ ratios for dating Holocene biogenic carbonates in the Southern Ocean: preliminary evidence from Antarctic coastal mollusc shells, 144 (1998) 331
Bernasconi, S.M., see Hofmann, B.A., 149 (1998) 127
Berner, R.A., see Lasaga, A.C., 145 (1998) 161
Bernhard, G., see Arnold, T., 151 (1998) 129
Bi, X., see Hu, R., 146 (1998) 55
Bickle, M., see Harris, N., 144 (1998) 205
Bigler, C., see Harlov, D.E., 151 (1998) 373
Blair, N., The $\delta^{13}C$ of biogenic methane in marine sediments: the influence of C_{org} deposition rate, 152 (1998) 139
Blichert-Toft, J., see Staudigel, H., 145 (1998) 153
Blowes, D.W., see Herbert Jr., R.B., 144 (1998) 87
Blum, J.D., see Harrington, R.R., 147 (1998) 281
Boeglin, J.-L. and J.-L. Probst, Physical and chemical weathering rates and CO_2 consumption in a tropical lateritic environment: the upper Niger basin, 148 (1998) 137
Boily, J.-F. and J.B. Fein, Adsorption of Pb(II) and benzenecarboxylates onto corundum, 148 (1998) 157
Bosbach, D., C. Hall and A. Putnis, Mineral precipitation and dissolution in aqueous solution: in-situ microscopic observations on barite (001) with atomic force microscopy, 151 (1998) 143
Bosbach, D., see Valsami-Jones, E., 151 (1998) 215

PII: S0009-2541(99)00017-0

Böttcher, M.E., A.M. Smock and H. Cypionka, Sulfur isotope fractionation during experimental precipitation of iron(II) and manganese(II) sulfide at room temperature, 146 (1998) 127
Boulvais, P., S. Fourcade, G. Gruau, B. Moine and M. Cuney, Persistence of pre-metamorphic C and O isotopic signatures in marbles subject to Pan-African granulite-facies metamorphism and U–Th mineralization (Tranomaro, Southeast Madagascar), 150 (1998) 247
Boyd, S.R. and P. Philippot, Precambrian ammonium biogeochemistry: a study of the Moine metasediments, Scotland, 144 (1998) 257
Brady, P.V., see Hercod, D.J., 151 (1998) 259
Brantley, S.L., see Chen, Y., 147 (1998) 233
Braun, I., J.-M. Montel and C. Nicollet, Electron microprobe dating of monazites from high-grade gneisses and pegmatites of the Kerala Khondalite Belt, southern India, 146 (1998) 65
Brewer, T.S. and J.F. Menuge, Metamorphic overprinting of Sm–Nd isotopic systems in volcanic rocks: the Telemark Supergroup, southern Norway, 145 (1998) 1
Bridgwater, D., see Krylov, D.P., 147 (1998) 295
Brodholt, J.P., Molecular dynamics simulations of aqueous NaCl solutions at high pressures and temperatures, 151 (1998) 11
Broman, C., see Frogner, P., 151 (1998) 161
Brooker, R.A., J.-A. Wartho, M.R. Carroll, S.P. Kelley and D.S. Draper, Preliminary UVLAMP determinations of argon partition coefficients for olivine and clinopyroxene grown from silicate melts, 147 (1998) 185
Brothers, L.A., see Andrusevich, V.E., 152 (1998) 59
Brown, C.B., see Lowenstein, T.K., 150 (1998) 223
Brown, S.J.A., R.M. Burt, J.W. Cole, S.J.P. Krippner, R.C. Price and I. Cartwright, Plutonic lithics in ignimbrites of Taupo Volcanic Zone, New Zealand: sources and conditions of crystallisation, 148 (1998) 21
Bruno, J., L. Duro, J. de Pablo, I. Casas, C. Ayora, J. Delgado, M.J. Gimeno, J. Peña, C. Linklater, L. Pérez del Villar and P. Gómez, Estimation of the concentrations of trace metals in natural systems. The application of codissolution and coprecipitation approaches to El Berrocal (Spain) and Poços de Caldas (Brazil), 151 (1998) 277
Bunbury, J., see Harris, N., 144 (1998) 205
Bureau, H., F. Pineau, N. Métrich, M.P. Semet and M. Javoy, A melt and fluid inclusion study of the gas phase at Piton de la Fournaise volcano (Réunion Island), 147 (1998) 115
Burgess, R., L.H. Johnson, D.P. Mattey, J.W. Harris and G. Turner, He, Ar and C isotopes in coated and polycrystalline diamonds, 146 (1998) 205
Burke, W.H., see Denison, R.E., 152 (1998) 325
Burnard, P.G., K.A. Farley and G. Turner, Multiple fluid pulses in a Samoan harzburgite, 147 (1998) 99
Burnard, P.G., see Hu, R., 146 (1998) 55
Burt, R.M., see Brown, S.J.A., 148 (1998) 21

Caldeira, K., see Kerrick, D.M., 145 (1998) 213
Camiré, G., see La Flèche, M.R., 148 (1998) 115
Cañaveras, J.C., see Sánchez-Moral, S., 149 (1998) 189
Carlson, P.R., see Kvenvolden, K.A., 152 (1998) 73
Carroll, M.R., see Withers, A.C., 147 (1998) 161
Carroll, M.R., see Brooker, R.A., 147 (1998) 185
Cartigny, P., J.W. Harris, D. Phillips, M. Girard and M. Javoy, Subduction-related diamonds? — The evidence for a mantle-derived origin from coupled $\delta^{13}C$–$\delta^{15}N$ determinations, 147 (1998) 147
Cartwright, I., see Brown, S.J.A., 148 (1998) 21
Casas, I., see Bruno, J., 151 (1998) 277
Castet, S., see Deberdt, S., 151 (1998) 349
Cattani, O., see Vaughn, B.H., 152 (1998) 309
Cerón, J.C., A. Pulido-Bosch and C. Sanz de Galdeano, Isotopic identification of CO_2 from a deep origin in thermomineral waters of southeastern Spain, 149 (1998) 251
Chamberlain, C.P., see Harrington, R.R., 147 (1998) 281
Chapman, H., see Harris, N., 144 (1998) 205
Charbit, S., H. Guillou and L. Turpin, Cross calibration of K–Ar standard minerals using an unspiked Ar measurement technique, 150 (1998) 147
Charlet, L., E. Silvester and E. Liger, N-compound reduction and actinide immobilisation in surficial fluids by Fe(II): the surface $\equiv Fe^{III}OFe^{II}OH^{\circ}$ species, as major reductant, 151 (1998) 85
Charlet, L., see Gabriel, U., 151 (1998) 107
Chen, Y. and S.L. Brantley, Diopside and anthophyllite dissolution at 25° and 90°C and acid pH, 147 (1998) 233
Cherniak, D.J., Pb diffusion in clinopyroxene, 150 (1998) 105
Chevallier, P., see Philippot, P., 144 (1998) 119
Chiba, H., see Teagle, D.A.H., 149 (1998) 1
Childs, C.W., K. Inoue and C. Mizota, Natural and anthropogenic schwertmannites from Towada-Hachimantai National Park, Honshu, Japan, 144 (1998) 81
Cifuentes, L.A., see Hammer, B.T., 152 (1998) 43
Clark, M.W., D. McConchie, D.W. Lewis and P. Saenger, Redox stratification and heavy metal partitioning in *Avicennia*-dominated mangrove sediments: a geochemical model, 149 (1998) 147
Clauer, N., see Toulkeridis, T., 145 (1998) 61
Clayton, R.N., see Sgarbi, P.B.A., 146 (1998) 115
Clément, A., see Gérard, F., 151 (1998) 247
Cocherie, A., see Pomiès, C., 144 (1998) 135
Coffin, R.B., see Hammer, B.T., 152 (1998) 43
Cole, J.W., see Brown, S.J.A., 148 (1998) 21
Collins, C., see Oelkers, E.H., 151 (1998) 21
Collins, C.R., see Ragnarsdottir, K.V., 151 (1998) 29
Conticelli, S., The effect of crustal contamination on ultrapotassic magmas with lamproitic affinity: mineralogical, geochemical and isotope data from the Torre Alfina lavas and xenoliths, Central Italy, 149 (1998) 51
Coplen, T.B., see Hopple, J.A., 152 (1998) 321
Cortecci, G., see Reyes, E., 150 (1998) 293
Coudrain-Ribstein, A., P. Gouze and G. de Marsily, Temperature–carbon dioxide partial pressure trends in confined aquifers, 145 (1998) 73
Coyle, D.A. and G.A. Wagner, Positioning the titanite fission-track partial annealing zone, 149 (1998) 117
Cózar, J.S., see Reyes, E., 150 (1998) 293
Cramer, B., B.M. Krooss and R. Littke, Modelling isotope fractionation during primary cracking of natural gas: a reaction kinetic approach, 149 (1998) 235
Cressey, G., see Valsami-Jones, E., 151 (1998) 215

Criss, R.E., see Ingraham, N.L., 150 (1998) 287
Croudace, I.W., see Taylor, R.N., 144 (1998) 73
Crovisier, J.-L., see Gérard, F., 151 (1998) 247
Cuney, M., see Boulvais, P., 150 (1998) 247
Cypionka, H., see Böttcher, M.E., 146 (1998) 127

Dandurand, J.-L., see Alkattan, M., 151 (1998) 199
Dandurand, J.-L., see Deberdt, S., 151 (1998) 349
Daughney, C.J., J.B. Fein and N. Yee, A comparison of the thermodynamics of metal adsorption onto two common bacteria, 144 (1998) 161
Davies, G.F., Topography: a robust constraint on mantle fluxes, 145 (1998) 479
Davies, J.F., S.A. Prevec, R.E. Whitehead and S.E. Jackson, Variations in REE and Sr-isotope chemistry of carbonate gangue, Castellanos Zn–Pb deposit, Cuba, 144 (1998) 97
Dean, W.E., see Arthur, M.A., 152 (1998) 273
Deberdt, S., S. Castet, J.-L. Dandurand, J.-C. Harrichoury and I. Louiset, Experimental study of $La(OH)_3$ and $Gd(OH)_3$ solubilities (25 to 150°C), and La–acetate complexing (25 to 80°C), 151 (1998) 349
De Deckker, P., see Wansard, G., 146 (1998) 39
Dee, S.J., see Taylor, R.N., 144 (1998) 73
Deino, A.L., see Renne, P.R., 145 (1998) 117
Deino, A.L., see Renne, P.R., 149 (1998) 259
Dejonghe, L., D. Demaiffe and D. Weis, Strontium isotope geochemistry of anhydrites and calcite pseudomorphs after anhydrite from Palaeozoic formations in Belgium, 144 (1998) 63
Dekkers, M.J., see Passier, H.F., 152 (1998) 287
De Lange, G.J., see Passier, H.F., 152 (1998) 287
Delgado, A., see Reyes, E., 150 (1998) 293
Delgado, J., see Bruno, J., 151 (1998) 277
Delmotte, M., see Vaughn, B.H., 152 (1998) 309
Demaiffe, D., see Dejonghe, L., 144 (1998) 63
De Marsily, G., see Coudrain-Ribstein, A., 145 (1998) 73
Deniel, C., Geochemical and isotopic (Sr, Nd, Pb) evidence for plume–lithosphere interactions in the genesis of Grande Comore magmas (Indian Ocean), 144 (1998) 281
Denison, R.E., R.B. Koepnick, W.H. Burke and E.A. Hetherington, Construction of the Cambrian and Ordovician seawater $^{87}Sr/^{86}Sr$ curve, 152 (1998) 325
De Pablo, J., see Bruno, J., 151 (1998) 277
DePaolo, D.J., see Renne, P.R., 145 (1998) 117
DePaolo, D.J., see Renne, P.R., 149 (1998) 259
Diakonov, I.I., K.V. Ragnarsdottir and B.R. Tagirov, Standard thermodynamic properties and heat capacity equations of rare earth hydroxides: II. Ce(III)-, Pr-, Sm-, Eu(III)-, Gd-, Tb-, Dy-, Ho-, Er-, Tm-, Yb-, and Y-hydroxides. Comparison of thermochemical and solubility data, 151 (1998) 327
Draper, D.S., see Brooker, R.A., 147 (1998) 185
Dulski, P., see Bau, M., 151 (1998) 293
Duro, L., see Bruno, J., 151 (1998) 277
Duthou, J.-L., see Poitrasson, F., 146 (1998) 187

Eadie, B.J., see Ostrom, P.H., 152 (1998) 163
Edmond, J., see Staudigel, H., 145 (1998) 153
Egeberg, P.K. and T. Barth, Contribution of dissolved organic species to the carbon and energy budgets of hydrate bearing deep sea sediments (Ocean Drilling Program Site 997 Blake Ridge), 149 (1998) 25
Engel, M.H., see Macko, S.A., 152 (1998) 1
Engel, M.H., see Andrusevich, V.E., 152 (1998) 59
Engel, M.H., see Macko, S.A., 152 (1998) 205

Fairchild, I., see Harris, N., 144 (1998) 205
Faith-Ell, C., see Kalinowski, B.E., 151 (1998) 181
Fallick, A.E., see Melezhik, V.A., 148 (1998) 61
Fang, C.Q., see Min, M.Z., 144 (1998) 313
Fanlo, I. and C. Ayora, The evolution of the Lorraine evaporite basin: implications for the chemical and isotope composition of the Triassic ocean, 146 (1998) 135
Farley, K.A., see Burnard, P.G., 147 (1998) 99
Farley, K.A., see Wolf, R.A., 148 (1998) 105
Faw, R.E., see Shue, S.L., 144 (1998) 47
Fehn, U., see Moran, J.E., 152 (1998) 193
Feichter, J., see Graf, H.-F., 147 (1998) 131
Fein, J.B., see Daughney, C.J., 144 (1998) 161
Fein, J.B., see Boily, J.-F., 148 (1998) 157
Fitton, J.G., see Nowell, G.M., 149 (1998) 211
Fogel, M.L., see Hammer, B.T., 152 (1998) 29
Folt, C.L., see Harrington, R.R., 147 (1998) 281
Fouillac, A.M., see Spicuzza, M.J., 144 (1998) 195
Fourcade, S., see Boulvais, P., 150 (1998) 247
Fournier, P., E.H. Oelkers, R. Gout and G. Pokrovski, Experimental determination of aqueous sodium-acetate dissociation constants at temperatures from 20 to 240°C, 151 (1998) 69
Franceschelli, M., M. Puxeddu and I. Memmi, Li, B-rich Rhaetian metabauxite, Tuscany, Italy: reworking of older bauxites and igneous rocks, 144 (1998) 221
François, L.M. and Y. Goddéris, Isotopic constraints on the Cenozoic evolution of the carbon cycle, 145 (1998) 177
Frantz, J.D., Raman spectra of potassium carbonate and bicarbonate aqueous fluids at elevated temperatures and pressures: comparison with theoretical simulations, 152 (1998) 211
Freeman, K., see Macko, S.A., 152 (1998) 1
Fritz, B., see Gérard, F., 151 (1998) 247
Frogner, P., C. Broman and S. Lindblom, Weathering detected by Raman spectroscopy using Al-ordering in albite, 151 (1998) 161
Frogner, P. and P. Schweda, Hornblende dissolution kinetics at 25°C, 151 (1998) 169
Frost, C.D., Principles and Applications of Geochemistry, 150 (1998) 283
Fry, B., C.S. Hopkinson Jr., A. Nolin and S.C. Wainright, $^{13}C/^{12}C$ composition of marine dissolved organic carbon, 152 (1998) 113

Gabriel, U., J.-P. Gaudet, L. Spadini and L. Charlet, Reactive transport of uranyl in a goethite column: an experimental and modelling study, 151 (1998) 107
García del Cura, M.A., see Sánchez-Moral, S., 149 (1998) 189
Garstang, M., see Turekian, V.C., 152 (1998) 181
Gaspar, J.C., see Sgarbi, P.B.A., 146 (1998) 115
Gaudet, J.-P., see Gabriel, U., 151 (1998) 107
Gautason, B. and K. Muehlenbachs, Oxygen isotopic fluxes associated with high-temperature processes in the rift zones of Iceland, 145 (1998) 275

Gérard, F., B. Fritz, A. Clément and J.-L. Crovisier, General implications of aluminium speciation-dependent kinetic dissolution rate law in water–rock modelling, 151 (1998) 247
Geringer, G.J., A.E. Schoch, M. Sukhanov and D. Zhuravlev, Geochemical and isotopic characteristics of different types of anorthosite in the Namaqua mobile belt, South Africa, 145 (1998) 17
Gibb, A.J., see Zhu, X.-K., 144 (1998) 305
Gibert, F., see Philippot, P., 144 (1998) 119
Gillet, P., see Lécuyer, C., 145 (1998) 249
Gimeno, M.J., see Bruno, J., 151 (1998) 277
Girard, J.P., see Spicuzza, M.J., 144 (1998) 195
Girard, M., see Cartigny, P., 147 (1998) 147
Goddéris, Y., see François, L.M., 145 (1998) 177
Goede, A., M. McCulloch, F. McDermott and C. Hawkesworth, Aeolian contribution to strontium and strontium isotope variations in a Tasmanian speleothem, 149 (1998) 37
Gómez, P., see Bruno, J., 151 (1998) 277
Götze, J., Geochemistry and provenance of the Altendorf feldspathic sandstone in the Middle Bunter of the Thuringian basin (Germany), 150 (1998) 43
Gout, R., see Fournier, P., 151 (1998) 69
Gouze, P., see Coudrain-Ribstein, A., 145 (1998) 73
Graf, H.-F., B. Langmann and J. Feichter, The contribution of Earth degassing to the atmospheric sulfur budget, 147 (1998) 131
Gregory, R.T., see Hercod, D.J., 151 (1998) 259
Grinenko, L.N., see Melezhik, V.A., 148 (1998) 61
Gronvold, K., see Hilton, D.R., 149 (1998) 173
Grove, M., see Mahon, K.I., 152 (1998) 227
Gruau, G., see Boulvais, P., 150 (1998) 247
Guerrot, C., see Pomiès, C., 144 (1998) 135
Guillou, H., see Charbit, S., 150 (1998) 147

Haase, G., see Wendt, I., 146 (1998) 99
Hall, C., see Bosbach, D., 151 (1998) 143
Halliday, A.N., see Teagle, D.A.H., 149 (1998) 1
Halter, W.E., A.E. Williams-Jones and D.J. Kontak, Modeling fluid–rock interaction during greisenization at the East Kemptville tin deposit: implications for mineralization, 150 (1998) 1
Hammer, B.T., M.L. Fogel and T.C. Hoering, Stable carbon isotope ratios of fatty acids in seagrass and redhead ducks, 152 (1998) 29
Hammer, B.T., C.A. Kelley, R.B. Coffin, L.A. Cifuentes and J.G. Mueller, $\delta^{13}C$ values of polycyclic aromatic hydrocarbons collected from two creosote-contaminated sites, 152 (1998) 43
Hammerschmidt, K., see Hilton, D.R., 149 (1998) 173
Hannon, J.E., see Hopple, J.A., 152 (1998) 321
Hansen, E.C., see Harlov, D.E., 151 (1998) 373
Hans Wedepohl, K., see Muramatsu, Y., 147 (1998) 201
Harlov, D.E., E.C. Hansen and C. Bigler, Petrologic evidence for K-feldspar metasomatism in granulite facies rocks, 151 (1998) 373
Harrichoury, J.-C., see Deberdt, S., 151 (1998) 349
Harrington, R.R., B.P. Kennedy, C.P. Chamberlain, J.D. Blum and C.L. Folt, ^{15}N enrichment in agricultural catchments: field patterns and applications to tracking Atlantic salmon (*Salmo salar*), 147 (1998) 281
Harris, J.W., see Burgess, R., 146 (1998) 205
Harris, J.W., see Cartigny, P., 147 (1998) 147
Harris, N., M. Bickle, H. Chapman, I. Fairchild and J. Bunbury, The significance of Himalayan rivers for silicate weathering rates: evidence from the Bhote Kosi tributary, 144 (1998) 205
Harrison, T.M., see Mahon, K.I., 152 (1998) 227
Harrison, T.M., see Mahon, K.I., 152 (1998) 257
Hashimoto, T., see Yamada, R., 149 (1998) 99
Hattori, M., see Hirata, T., 144 (1998) 269
Hawkesworth, C., see Goede, A., 149 (1998) 37
Hay, W.W., Detrital sediment fluxes from continents to oceans, 145 (1998) 287
Hedin, L.O., see Ostrom, N.E., 146 (1998) 219
Heinrich, W., see Andrehs, G., 149 (1998) 83
Henry, J., see Ostrom, P.H., 152 (1998) 163
Herbert Jr., R.B., S.G. Benner, A.R. Pratt and D.W. Blowes, Surface chemistry and morphology of poorly crystalline iron sulfides precipitated in media containing sulfate-reducing bacteria, 144 (1998) 87
Hercod, D.J., P.V. Brady and R.T. Gregory, Catchment-scale coupling between pyrite oxidation and calcite weathering, 151 (1998) 259
Hergt, J., see Powell, R., 148 (1998) 95
Hetherington, E.A., see Denison, R.E., 152 (1998) 325
Hilton, D.R., K. Gronvold, A.E. Sveinbjornsdottir and K. Hammerschmidt, Helium isotope evidence for off-axis degassing of the Icelandic hotspot, 149 (1998) 173
Hirata, T., M. Hattori and T. Tanaka, In-situ osmium isotope ratio analyses of iridosmines by laser ablation–multiple collector–inductively coupled plasma mass spectrometry, 144 (1998) 269
Hobbie, E.A., S.A. Macko and H.H. Shugart, Patterns in N dynamics and N isotopes during primary succession in Glacier Bay, Alaska, 152 (1998) 3
Hoering, T.C., see Hammer, B.T., 152 (1998) 29
Hoernes, S., see Krylov, D.P., 147 (1998) 295
Hofmann, B.A. and S.M. Bernasconi, Review of occurrences and carbon isotope geochemistry of oxalate minerals: implications for the origin and fate of oxalate in diagenetic and hydrothermal fluids, 149 (1998) 127
Holloway, J.R., Graphite-melt equilibria during mantle melting: constraints on CO_2 in MORB magmas and the carbon content of the mantle, 147 (1998) 89
Holmes, C.W., see Bates, A.L., 146 (1998) 155
Hopkinson Jr., C.S., see Fry, B., 152 (1998) 113
Hoppe, K.A., see Koch, P.L., 152 (1998) 119
Hopple, J.A., J.E. Hannon and T.B. Coplen, Comparison of two stable hydrogen isotope-ratio measurement techniques on Antarctic surface-water and ice samples, 152 (1998) 321
Hoyos, M., see Sánchez-Moral, S., 149 (1998) 189
Hu, R., P.G. Burnard, G. Turner and X. Bi, Helium and Argon isotope systematics in fluid inclusions of Machangqing copper deposit in west Yunnan province, China, 146 (1998) 55
Huc, A.-Y., see Lorant, F., 147 (1998) 249
Humphris, S.E., see Teagle, D.A.H., 149 (1998) 1
Hurford, A.J., see Siddall, R., 150 (1998) 181

Igarashi, G., see Sano, Y., 150 (1998) 171
Iglesias, M.J., see Jiménez, A., 150 (1998) 197
Ilyin, A.V., Rare-earth geochemistry of 'old' phosphorites and probability of syngenetic precipitation and accumulation of phosphate, 144 (1998) 243
Ingraham, N.L. and R.E. Criss, The effect of vapor pressure on the rate of isotopic exchange between water and water vapor, 150 (1998) 287
Inoue, K., see Childs, C.W., 144 (1998) 81
Irber, W., see Bau, M., 151 (1998) 293
Irber, W., see Bach, W., 151 (1998) 309

Jackson, S.E., see Davies, J.F., 144 (1998) 97
Jacobsen, S.B., see Staudigel, H., 145 (1998) 153
Jauhari, P., see Banakar, V.K., 147 (1998) 217
Javoy, M., The birth of the Earth's atmosphere: the behaviour and fate of its major elements, 147 (1998) 11
Javoy, M., see Bureau, H., 147 (1998) 115
Javoy, M., see Cartigny, P., 147 (1998) 147
Javoy, M., see Pineau, F., 147 (1998) 173
Jenner, G.A., see La Flèche, M.R., 148 (1998) 115
Jensen, S.M., Tertiary mineralization and magmatism, East Greenland: lead isotope evidence for remobilization of continental crust, 150 (1998) 119
Jiménez, A., M.J. Iglesias, F. Laggoun-Défarge and I. Suárez-Ruiz, Study of physical and chemical properties of vitrinites. Inferences on depositional and coalification controls, 150 (1998) 197
Johnson, L.H., see Burgess, R., 146 (1998) 205
Julià, R., see Wansard, G., 146 (1998) 39

Kadik, A., see Pineau, F., 147 (1998) 173
Kalinowski, B.E., C. Faith-Ell and P. Schweda, Dissolution kinetics and alteration of epidote in acidic solutions at 25°C, 151 (1998) 181
Kamber, B.S., S. Moorbath and M.J. Whitehouse, Extreme Nd-isotope heterogeneity in the early Archaean —fact or fiction? Case histories from northern Canada and West Greenland—Reply, 148 (1998) 219
Kamber, B.S. and S. Moorbath, Initial Pb of the Amîtsoq gneiss revisited: implication for the timing of early Archaean crustal evolution in West Greenland, 150 (1998) 19
Kanai, Y., see Bau, M., 151 (1998) 293
Kaneoka, I., Noble gas signatures in the Earth's interior-coupled or decoupled behaviour among each isotope systematics and problems related to their implication, 147 (1998) 61
Karner, D.B., see Renne, P.R., 145 (1998) 117
Karner, D.B., see Renne, P.R., 149 (1998) 259
Kass, D.M., see Wolf, R.A., 148 (1998) 105
Keeling, R., see Staudigel, H., 145 (1998) 153
Kelley, C.A., see Hammer, B.T., 152 (1998) 43
Kelley, S.P., see Brooker, R.A., 147 (1998) 185
Kemp, A.J., see Valsami-Jones, E., 151 (1998) 215
Kempton, P.D., see Nowell, G.M., 149 (1998) 211
Kennedy, B.P., see Harrington, R.R., 147 (1998) 281
Keppens, E., see Mees, F., 146 (1998) 87
Kerrick, D.M. and K. Caldeira, Metamorphic CO_2 degassing from orogenic belts, 145 (1998) 213
Knoke, K.E., see Ostrom, N.E., 146 (1998) 219
Koch, P.L., K.A. Hoppe and S.D. Webb, The isotopic ecology of late Pleistocene mammals in North America. Part 1. Florida, 152 (1998) 119
Koepnick, R.B., see Denison, R.E., 152 (1998) 325
Kohn, M.J., M.J. Schoeninger and J.W. Valley, Variability in oxygen isotope compositions of herbivore teeth: reflections of seasonality or developmental physiology?, 152 (1998) 97
Kohn, M.J., see Spicuzza, M.J., 144 (1998) 195
Koizumi, N., see Sano, Y., 150 (1998) 171
Kontak, D.J., see Halter, W.E., 150 (1998) 1
Kramers, J.D., Reconciling siderophile element data in the Earth and Moon, W isotopes and the upper lunar age limit in a simple model of homogeneous accretion, 145 (1998) 461
Krippner, S.J.P., see Brown, S.J.A., 148 (1998) 21
Krishnamurthy, R.V. and M. Machavaram, Hydrogen isotope exchange in thermally stressed cellulose, 152 (1998) 85
Krooss, B.M., see Cramer, B., 149 (1998) 235
Krylov, D.P., S. Hoernes and D. Bridgwater, Changes in the $^{18}O/^{16}O$ ratios of fluids as evidence for different metamorphic episodes in high grade gneisses from the Konovalov Mountains area (Rayner Complex, East Antarctica), 147 (1998) 295
Ku, T.-L., see Berkman, P.A., 144 (1998) 331
Kvenvolden, K.A., P.R. Carlson, A. Warden and C.N. Threlkeld, Carbon isotopic comparisons of oil products used in the developmental history of Alaska, 152 (1998) 73

Laarkamp, K., see Arthur, M.A., 152 (1998) 273
La Flèche, M.R., G. Camiré and G.A. Jenner, Geochemistry of post-Acadian, Carboniferous continental intraplate basalts from the Maritimes Basin, Magdalen Islands, Québec, Canada, 148 (1998) 115
Laggoun-Défarge, F., see Jiménez, A., 150 (1998) 197
Lancelot, J., see Pomiès, C., 144 (1998) 135
Langmann, B., see Graf, H.-F., 147 (1998) 131
Langmuir, C.H., see Staudigel, H., 145 (1998) 153
Langmuir, C.H., see Plank, T., 145 (1998) 325
Lasaga, A.C. and R.A. Berner, Fundamental aspects of quantitative models for geochemical cycles, 145 (1998) 161
Lawrence, J.R., Isotopic spikes from tropical cyclones in surface waters: Opportunities in hydrology and paleoclimatology, 144 (1998) 151
Lécuyer, C., P. Gillet and F. Robert, The hydrogen isotope composition of seawater and the global water cycle, 145 (1998) 249
Legrand, F., see Philippot, P., 144 (1998) 119
Lewis, D.W., see Clark, M.W., 149 (1998) 147
Li, J., see Lowenstein, T.K., 150 (1998) 223
Liger, E., see Charlet, L., 151 (1998) 85
Lindblom, S., see Frogner, P., 151 (1998) 161
Lindsay, D., see Reynolds, P., 148 (1998) 45
Linklater, C., see Bruno, J., 151 (1998) 277
Liou, J.G., see Zhang, R.Y., 150 (1998) 161
Littke, R., see Cramer, B., 149 (1998) 235
Logan, T.J., see Myneni, S.C.B., 148 (1998) 1
Long, D.T., see Ostrom, N.E., 152 (1998) 13

Lorant, F., A. Prinzhofer, F. Behar and A.-Y. Huc, Carbon isotopic and molecular constraints on the formation and the expulsion of thermogenic hydrocarbon gases, 147 (1998) 249
Louiset, I., see Deberdt, S., 151 (1998) 349
Louvat, P. and C.J. Allègre, Riverine erosion rates on Sao Miguel volcanic island, Azores archipelago, 148 (1998) 177
Lowenstein, T.K., J. Li and C.B. Brown, Paleotemperatures from fluid inclusions in halite: method verification and a 100,000 year paleotemperature record, Death Valley, CA, 150 (1998) 223
Luck, J.-M. and D. Ben Othman, Geochemistry and water dynamics. II. Trace metals and Pb–Sr isotopes as tracers of water movements and erosion processes, 150 (1998) 263
Luck, J.-M., see Petelet, E., 150 (1998) 63

Machavaram, M., see Krishnamurthy, R.V., 152 (1998) 85
Macko, S., see Turekian, V.C., 152 (1998) 181
Macko, S.A., M.H. Engel and K. Freeman, Variability of isotope compositions in modern and fossil organic matter, 152 (1998) 1
Macko, S.A., M. Ryan and M.H. Engel, Stable isotopic analysis of individual carbohydrates by gas chromatographic/combustion/isotope ratio mass spectrometry, 152 (1998) 205
Macko, S.A., see Spangenberg, J.E., 146 (1998) 1
Macko, S.A., see Hobbie, E.A., 152 (1998) 3
Macko, S.A., see Ballentine, D.C., 152 (1998) 151
Macpherson, C.G. and D.P. Mattey, Oxygen isotope variations in Lau Basin lavas, 144 (1998) 177
Mahon, K.I., T.M. Harrison and M. Grove, The thermal and cementation histories of a sandstone petroleum reservoir, Elk Hills, California. Part 1: $^{40}Ar/^{39}Ar$ thermal history results, 152 (1998) 227
Mahon, K.I., T.M. Harrison and K.D. McKeegan, The thermal and cementation histories of a sandstone petroleum reservoir, Elk Hills, California. Part 2: in situ oxygen and carbon isotopic results, 152 (1998) 257
Mahoney, J.J., see Nowell, G.M., 149 (1998) 211
Maier, W.D. and S.-J. Barnes, Concentrations of rare earth elements in silicate rocks of the Lower, Critical and Main Zones of the Bushveld Complex, 150 (1998) 85
Marcoux, E., see Pomiès, C., 144 (1998) 135
Marsh, J.S., see Smithies, R.H., 148 (1998) 201
Marty, B. and I.N. Tolstikhin, CO_2 fluxes from mid-ocean ridges, arcs and plumes, 145 (1998) 233
Marty, B., see Tolstikhin, I.N., 147 (1998) 27
Mattey, D.P., see Macpherson, C.G., 144 (1998) 177
Mattey, D.P., see Burgess, R., 146 (1998) 205
Mayeda, T.K., see Sgarbi, P.B.A., 146 (1998) 115
McConchie, D., see Clark, M.W., 149 (1998) 147
McCulloch, M., see Goede, A., 149 (1998) 37
McDermott, F., see Goede, A., 149 (1998) 37
McDonough, B., see Staudigel, H., 145 (1998) 153
McDonough, W.F., see Rudnick, R.L., 145 (1998) 395
McKeegan, K.D., see Mahon, K.I., 152 (1998) 257
Mees, F., E. Reyes and E. Keppens, Stable isotope chemistry of gaylussite and nahcolite from the deposits of the crater lake at Malha, northern Sudan, 146 (1998) 87
Melezhik, V.A., L.N. Grinenko and A.E. Fallick, 2000-Ma sulphide concretions from the 'Productive' Formation of the Pechenga Greenstone Belt, NW Russia: genetic history based on morphological and isotopic evidence, 148 (1998) 61
Memmi, I., see Franceschelli, M., 144 (1998) 221
Menez, B., see Philippot, P., 144 (1998) 119
Menuge, J.F., see Brewer, T.S., 145 (1998) 1
Métrich, N., see Bureau, H., 147 (1998) 115
Meyers, P.A., see Ostrom, P.H., 152 (1998) 163
Milledge, H.J., see Shelkov, D.A., 149 (1998) 109
Min, M.Z., J.P. Zhai and C.Q. Fang, Uranium-series radionuclide and element migration around the Sanerliu granite-hosted uranium deposit in southern China as a natural analogue for high-level radwaste repositories, 144 (1998) 313
Mita, N., see Bau, M., 151 (1998) 293
Mizota, C., see Childs, C.W., 144 (1998) 81
Moine, B., see Boulvais, P., 150 (1998) 247
Montel, J.-M., see Braun, I., 146 (1998) 65
Montel, J.-M., see Poitrasson, F., 146 (1998) 187
Moorbath, S., see Kamber, B.S., 148 (1998) 219
Moorbath, S., see Kamber, B.S., 150 (1998) 19
Moran, J.E., U. Fehn and R.T.D. Teng, Variations in $^{129}I/^{127}I$ ratios in recent marine sediments: evidence for a fossil organic component, 152 (1998) 193
Moreira, M. and C.J. Allègre, Helium–neon systematics and the structure of the mantle, 147 (1998) 53
Moriguti, T. and E. Nakamura, High-yield lithium separation and the precise isotopic analysis for natural rock and aqueous samples, 145 (1998) 91
Muchez, P. and M. Sintubin, Contrasting origin of palaeofluids in a strike-slip fault system , 145 (1998) 105
Muehlenbachs, K., The oxygen isotopic composition of the oceans, sediments and the seafloor, 145 (1998) 263
Muehlenbachs, K., see Gautason, B., 145 (1998) 275
Mueller, J.G., see Hammer, B.T., 152 (1998) 43
Münker, C., Nb/Ta fractionation in a Cambrian arc/back arc system, New Zealand: source constraints and application of refined ICPMS techniques, 144 (1998) 23
Muramatsu, Y. and K. Hans Wedepohl, The distribution of iodine in the earth's crust, 147 (1998) 201
Myneni, S.C.B., S.J. Traina and T.J. Logan, Ettringite solubility and geochemistry of the $Ca(OH)_2$–$Al_2(SO_4)_3$–H_2O system at 1 atm pressure and 298 K, 148 (1998) 1

Nakamura, E., see Moriguti, T., 145 (1998) 91
Nakamura, H., see Yamada, R., 149 (1998) 99
Negrel, P., see Petelet, E., 150 (1998) 63
Nicollet, C., see Braun, I., 146 (1998) 65
Nielsen, R.L., see Staudigel, H., 145 (1998) 153
Nishimura, S., see Yamada, R., 149 (1998) 99
Nitsche, H., see Arnold, T., 151 (1998) 129
Noble, S.R., see Nowell, G.M., 149 (1998) 211
Nolin, A., see Fry, B., 152 (1998) 113
Nowell, G.M., P.D. Kempton, S.R. Noble, J.G. Fitton, A.D. Saunders, J.J. Mahoney and R.N. Taylor, High precision Hf isotope measurements of MORB and OIB by thermal ionisation mass spectrometry: insights into the depleted mantle, 149 (1998) 211

Núñez, R., see Reyes, E., 150 (1998) 293
Nutman, A.P., see Bennett, V.C., 148 (1998) 213

O'Connell, R.J., see Rudnick, R.L., 145 (1998) 395
Oelkers, E.H., D.M. Sherman, K.V. Ragnarsdottir and C. Collins, An EXAFS spectroscopic study of aqueous antimony(III)-chloride complexation at temperatures from 25 to 250°C, 151 (1998) 21
Oelkers, E.H. and J. Schott, Does organic acid adsorption affect alkali-feldspar dissolution rates?, 151 (1998) 235
Oelkers, E.H., see Ragnarsdottir, K.V., 151 (1998) 1
Oelkers, E.H., see Ragnarsdottir, K.V., 151 (1998) 29
Oelkers, E.H., see Fournier, P., 151 (1998) 69
Oelkers, E.H., see Alkattan, M., 151 (1998) 199
Öhman, L.-O., Experimental determination of stability constants of aqueous complexes, 151 (1998) 41
O'Nions, R.K., see Zhu, X.-K., 144 (1998) 305
Ordóñez, S., see Sánchez-Moral, S., 149 (1998) 189
Ostrom, N.E., K.E. Knoke, L.O. Hedin, G.P. Robertson and A.J.M. Smucker, Temporal trends in nitrogen isotope values of nitrate leaching from an agricultural soil, 146 (1998) 219
Ostrom, N.E., D.T. Long, E.M. Bell and T. Beals, The origin and cycling of particulate and sedimentary organic matter and nitrate in Lake Superior, 152 (1998) 13
Ostrom, N.E., see Ostrom, P.H., 152 (1998) 163
Ostrom, P.H., N.E. Ostrom, J. Henry, B.J. Eadie, P.A. Meyers and J.A. Robbins, Changes in the trophic state of Lake Erie: discordance between molecular $\delta^{13}C$ and bulk $\delta^{13}C$ sedimentary records, 152 (1998) 163
Owens, T.L., see Renne, P.R., 145 (1998) 117
Owens, T.L., see Renne, P.R., 149 (1998) 259

Paquette, J.-L., see Poitrasson, F., 146 (1998) 187
Park, Y.-R. and E.M. Ripley, Sulfur isotopic analysis of 3–10 micromole samples of SO_2 from sulfides, sulfates, and whole rocks using conventional combustion and mass spectrometric techniques, 150 (1998) 191
Parthiban, G., see Banakar, V.K., 147 (1998) 217
Passier, H.F., M.J. Dekkers and G.J. de Lange, Sediment chemistry and magnetic properties in an anomalously reducing core from the eastern Mediterranean Sea, 152 (1998) 287
Pattan, J.N., see Banakar, V.K., 147 (1998) 217
Pelayo, M., see Reyes, E., 150 (1998) 293
Peña, J., see Bruno, J., 151 (1998) 277
Pérez del Villar, L., see Reyes, E., 150 (1998) 293
Pérez del Villar, L., see Bruno, J., 151 (1998) 277
Pervaz, M., see Bechtel, A., 144 (1998) 1
Petelet, E., J.-M. Luck, D. Ben Othman, P. Negrel and L. Aquilina, Geochemistry and water dynamics of a medium-sized watershed: the Hérault, southern France. 1. Organisation of the different water reservoirs as constrained by Sr isotopes, major, and trace elements, 150 (1998) 63
Philippot, P., B. Menez, P. Chevallier, F. Gibert, F. Legrand and P. Populus, Absorption correction procedures for quantitative analysis of fluid inclusions using synchrotron radiation X-ray fluorescence, 144 (1998) 119
Philippot, P., see Boyd, S.R., 144 (1998) 257
Phillips, D., see Cartigny, P., 147 (1998) 147
Phipps Morgan, J., Thermal and rare gas evolution of the mantle, 145 (1998) 431
Pillinger, C.T., see Shelkov, D.A., 149 (1998) 109
Pin, C., see Poitrasson, F., 146 (1998) 187
Pineau, F., S. Shilobreeva, A. Kadik and M. Javoy, Water solubility and D/H fractionation in the system basaltic andesite–H_2O at 1250°C and between 0.5 and 3 kbars, 147 (1998) 173
Pineau, F., see Bureau, H., 147 (1998) 115
Plank, T. and C.H. Langmuir, The chemical composition of subducting sediment and its consequences for the crust and mantle, 145 (1998) 325
Plank, T., see Staudigel, H., 145 (1998) 153
Podwojewski, P., see Toulkeridis, T., 145 (1998) 61
Poitrasson, F., J.-L. Paquette, J.-M. Montel, C. Pin and J.-L. Duthou, Importance of late-magmatic and hydrothermal fluids on the Sm–Nd isotope mineral systematics of hypersolvus granites, 146 (1998) 187
Pokrovski, G., see Fournier, P., 151 (1998) 69
Pokrovski, G.S., see Salvi, S., 151 (1998) 51
Pomiès, C., A. Cocherie, C. Guerrot, E. Marcoux and J. Lancelot, Assessment of the precision and accuracy of lead-isotope ratios measured by TIMS for geochemical applications: example of massive sulphide deposits (Rio Tinto, Spain), 144 (1998) 135
Populus, P., see Philippot, P., 144 (1998) 119
Powell, R., J. Woodhead and J. Hergt, Uncertainties on lead isotope analyses: deconvolution in the double-spike method, 148 (1998) 95
Pracejus, B., see Bau, M., 151 (1998) 293
Pratt, A.R., see Herbert Jr., R.B., 144 (1998) 87
Prevec, S.A., see Davies, J.F., 144 (1998) 97
Price, R.C., see Brown, S.J.A., 148 (1998) 21
Prinzhofer, A., see Lorant, F., 147 (1998) 249
Probst, J.-L., see Boeglin, J.-L., 148 (1998) 137
Pulido-Bosch, A., see Cerón, J.C., 149 (1998) 251
Putnis, A., see Bosbach, D., 151 (1998) 143
Putnis, A., see Valsami-Jones, E., 151 (1998) 215
Püttmann, W., see Bechtel, A., 144 (1998) 1
Puxeddu, M., see Franceschelli, M., 144 (1998) 221

Ragnarsdottir, K.V. and E.H. Oelkers, Geochemistry of crustal fluids: a Tyrolean perspective, 151 (1998) 1
Ragnarsdottir, K.V., E.H. Oelkers, D.M. Sherman and C.R. Collins, Aqueous speciation of yttrium at temperatures from 25 to 340°C at P_{sat}: an in situ EXAFS study, 151 (1998) 29
Ragnarsdottir, K.V., see Oelkers, E.H., 151 (1998) 21
Ragnarsdottir, K.V., see Randall, S.R., 151 (1998) 95
Ragnarsdottir, K.V., see Valsami-Jones, E., 151 (1998) 215
Ragnarsdottir, K.V., see Diakonov, I.I., 151 (1998) 327
Randall, S.R., D.M. Sherman and K.V. Ragnarsdottir, An extended X-ray absorption fine structure spectroscopy investigation of cadmium sorption on cryptomelane (KMn_8O_{16}), 151 (1998) 95
Ravenhurst, C., see Reynolds, P., 148 (1998) 45
Renne, P.R., C.C. Swisher, A.L. Deino, D.B. Karner, T.L. Owens and D.J. DePaolo, Intercalibration of standards, absolute ages and uncertainties in $^{40}Ar/^{39}Ar$ dating, 145 (1998) 117

Renne, P.R., C.C. Swisher, A.L. Deino, D.B. Karner, T.L. Owens and D.J. DePaolo, Corrigendum to "Intercalibration of standards, absolute ages and uncertainties in $^{40}Ar/^{39}Ar$ dating [Chemical Geology 145 (1998) 117–152]", 149 (1998) 259
Reyes, E., L. Pérez del Villar, A. Delgado, G. Cortecci, R. Núñez, M. Pelayo and J.S. Cózar, Carbonatation processes at the El Berrocal natural analogue granitic system (Spain): inferences from mineralogical and stable isotope studies, 150 (1998) 293
Reyes, E., see Mees, F., 146 (1998) 87
Reynolds, P., C. Ravenhurst, M. Zentilli and D. Lindsay, High-precision $^{40}Ar/^{39}Ar$ dating of two consecutive hydrothermal events in the Chuquicamata porphyry copper system, Chile, 148 (1998) 45
Ripley, E.M., see Park, Y.-R., 150 (1998) 191
Robbins, J.A., see Ostrom, P.H., 152 (1998) 163
Robert, F., see Lécuyer, C., 145 (1998) 249
Roberts, S.J., Prediction of pH in natural hydrothermal fluids at elevated P–T conditions, 146 (1998) 171
Robertson, G.P., see Ostrom, N.E., 146 (1998) 219
Rudnick, R., see Staudigel, H., 145 (1998) 153
Rudnick, R.L., W.F. McDonough and R.J. O'Connell, Thermal structure, thickness and composition of continental lithosphere, 145 (1998) 395
Rumble III, D., see Zhang, R.Y., 150 (1998) 161
Ryan, M., see Macko, S.A., 152 (1998) 205

Saenger, P., see Clark, M.W., 149 (1998) 147
Salters, V.J.M. and W.M. White, Hf isotope constraints on mantle evolution, 145 (1998) 447
Salvi, S., G.S. Pokrovski and J. Schott, Experimental investigation of aluminum-silica aqueous complexing at 300°C, 151 (1998) 51
Sánchez-Moral, S., S. Ordóñez, M.A. García del Cura, M. Hoyos and J.C. Cañaveras, Penecontemporaneous diagenesis in continental saline sediments: bloeditization in Quero playa lake (La Mancha, Central Spain), 149 (1998) 189
Sano, Y., N. Takahata, G. Igarashi, N. Koizumi and N.C. Sturchio, Helium degassing related to the Kobe earthquake, 150 (1998) 171
Sanz de Galdeano, C., see Cerón, J.C., 149 (1998) 251
Saunders, A.D., see Nowell, G.M., 149 (1998) 211
Schoch, A.E., see Geringer, G.J., 145 (1998) 17
Schoeninger, M.J., see Kohn, M.J., 152 (1998) 97
Schott, J., see Salvi, S., 151 (1998) 51
Schott, J., see Alkattan, M., 151 (1998) 199
Schott, J., see Oelkers, E.H., 151 (1998) 235
Schweda, P., see Frogner, P., 151 (1998) 169
Schweda, P., see Kalinowski, B.E., 151 (1998) 181
Semet, M.P., see Bureau, H., 147 (1998) 115
Severmann, S. and J. Thomson, Investigation of the ingrowth of radioactive daughters of ^{238}U in Mediterranean sapropels as a potential dating tool, 150 (1998) 317
Sgarbi, P.B.A., R.N. Clayton, T.K. Mayeda and J.C. Gaspar, Oxygen isotope thermometry of Brazilian potassic volcanic rocks of kamafugitic affinities, 146 (1998) 115
Shaw, H.F., see Staudigel, H., 145 (1998) 153
Shelkov, D.A., A.B. Verchovsky, H.J. Milledge and C.T. Pillinger, The radial distribution of implanted and trapped ^{4}He in single diamond crystals and implications for the origin of carbonado, 149 (1998) 109
Sherman, D.M., see Oelkers, E.H., 151 (1998) 21
Sherman, D.M., see Ragnarsdottir, K.V., 151 (1998) 29
Sherman, D.M., see Randall, S.R., 151 (1998) 95
Shilobreeva, S., see Pineau, F., 147 (1998) 173
Shirey, S., see Staudigel, H., 145 (1998) 153
Shue, S.L., R.E. Faw and J.K. Shultis, Thermal-neutron intensities in soils irradiated by fast neutrons from point sources, 144 (1998) 47
Shugart, H.H., see Hobbie, E.A., 152 (1998) 3
Shultis, J.K., see Shue, S.L., 144 (1998) 47
Siddall, R. and A.J. Hurford, Semi-quantitative determination of apatite anion composition for fission-track analysis using infra-red microspectroscopy, 150 (1998) 181
Silvester, E., see Charlet, L., 151 (1998) 85
Sintubin, M., see Muchez, P., 145 (1998) 105
Smithies, R.H. and J.S. Marsh, The Marinkas Quellen Carbonatite Complex, southern Namibia; carbonatite magmatism with an uncontaminated depleted mantle signature in a continental setting, 148 (1998) 201
Smock, A.M., see Böttcher, M.E., 146 (1998) 127
Smucker, A.J.M., see Ostrom, N.E., 146 (1998) 219
Spadini, L., see Gabriel, U., 151 (1998) 107
Spangenberg, J.E. and S.A. Macko, Organic geochemistry of the San Vicente zinc–lead district, eastern Pucará Basin, Peru, 146 (1998) 1
Spicuzza, M.J., J.W. Valley, M.J. Kohn, J.P. Girard and A.M. Fouillac, The rapid heating, defocused beam technique: a CO_2-laser-based method for highly precise and accurate determination of $\delta^{18}O$ values of quartz, 144 (1998) 195
Spiker, E.C., see Bates, A.L., 146 (1998) 155
Staudigel, H., F. Albarède, J. Blichert-Toft, J. Edmond, B. McDonough, S.B. Jacobsen, R. Keeling, C.H. Langmuir, R.L. Nielsen, T. Plank, R. Rudnick, H.F. Shaw, S. Shirey, J. Veizer and W. White, Geochemical Earth Reference Model (GERM): description of the initiative, 145 (1998) 153
Stievenard, M., see Vaughn, B.H., 152 (1998) 309
Stuart, F.M. and G. Turner, Mantle-derived ^{40}Ar in mid-ocean ridge hydrothermal fluids: implications for the source of volatiles and mantle degassing rates, 147 (1998) 77
Sturchio, N.C., see Sano, Y., 150 (1998) 171
Suárez-Ruiz, I., see Jiménez, A., 150 (1998) 197
Sukhanov, M., see Geringer, G.J., 145 (1998) 17
Sveinbjornsdottir, A.E., see Hilton, D.R., 149 (1998) 173
Swap, R.J., see Turekian, V.C., 152 (1998) 181
Swisher, C.C., see Renne, P.R., 145 (1998) 117
Swisher, C.C., see Renne, P.R., 149 (1998) 259
Szaran, J., Carbon isotope fractionation between dissolved and gaseous carbon dioxide, 150 (1998) 331

Tagami, T., see Yamada, R., 149 (1998) 99
Tagirov, B.R., see Diakonov, I.I., 151 (1998) 327
Takahata, N., see Sano, Y., 150 (1998) 171
Tanaka, T., see Hirata, T., 144 (1998) 269
Taylor, K.G., Spatial and temporal variations in early diagenetic organic matter oxidation pathways in Lower Jurassic mudstones of eastern England, 145 (1998) 47

Taylor, R.N., I.W. Croudace, P.E. Warwick and S.J. Dee, Precise and rapid determination of $^{238}U/^{235}U$ and uranium concentration in soil samples using thermal ionisation mass spectrometry, 144 (1998) 73
Taylor, R.N., see Nowell, G.M., 149 (1998) 211
Teagle, D.A.H., J.C. Alt, H. Chiba, S.E. Humphris and A.N. Halliday, Strontium and oxygen isotopic constraints on fluid mixing, alteration and mineralization in the TAG hydrothermal deposit, 149 (1998) 1
Teng, R.T.D., see Moran, J.E., 152 (1998) 193
Thomson, J., see Severmann, S., 150 (1998) 317
Threlkeld, C.N., see Kvenvolden, K.A., 152 (1998) 73
Tingle, T.N., Accretion and differentiation of carbon in the early Earth, 147 (1998) 3
Tolstikhin, I.N. and B. Marty, The evolution of terrestrial volatiles: a view from helium, neon, argon and nitrogen isotope modelling, 147 (1998) 27
Tolstikhin, I.N., see Marty, B., 145 (1998) 233
Toulkeridis, T., P. Podwojewski and N. Clauer, Tracing the source of gypsum in New Caledonian soils by REE contents and S–Sr isotopic compositions, 145 (1998) 61
Traina, S.J., see Myneni, S.C.B., 148 (1998) 1
Trolier, M., see Vaughn, B.H., 152 (1998) 309
Turekian, V.C., S. Macko, D. Ballentine, R.J. Swap and M. Garstang, Causes of bulk carbon and nitrogen isotopic fractionations in the products of vegetation burns: laboratory studies, 152 (1998) 181
Turekian, V.C., see Ballentine, D.C., 152 (1998) 151
Turner, G., see Hu, R., 146 (1998) 55
Turner, G., see Burgess, R., 146 (1998) 205
Turner, G., see Stuart, F.M., 147 (1998) 77
Turner, G., see Burnard, P.G., 147 (1998) 99
Turpin, L., see Charbit, S., 150 (1998) 147

Usui, A., see Bau, M., 151 (1998) 293

Valley, J.W., see Spicuzza, M.J., 144 (1998) 195
Valley, J.W., see Kohn, M.J., 152 (1998) 97
Valsami-Jones, E., K.V. Ragnarsdottir, A. Putnis, D. Bosbach, A.J. Kemp and G. Cressey, The dissolution of apatite in the presence of aqueous metal cations at pH 2–7, 151 (1998) 215
Vaughn, B.H., J.W.C. White, M. Delmotte, M. Trolier, O. Cattani and M. Stievenard, An automated system for hydrogen isotope analysis of water, 152 (1998) 309
Veizer, J., see Staudigel, H., 145 (1998) 153
Verchovsky, A.B., see Shelkov, D.A., 149 (1998) 109
Volkova, N.I., Geochemistry of rare elements in waters and sediments of alkaline lakes in the Sasykkul depression, East Pamirs, 147 (1998) 265

Wagner, G.A., see Coyle, D.A., 149 (1998) 117
Wainright, S.C., see Fry, B., 152 (1998) 113
Wang, Q.C., see Zhang, R.Y., 150 (1998) 161
Wansard, G., P. De Deckker and R. Julià, Variability in ostracod partition coefficients D(Sr) and D(Mg). Implications for lacustrine palaeoenvironmental reconstructions, 146 (1998) 39
Warden, A., see Kvenvolden, K.A., 152 (1998) 73
Wartho, J.-A., see Brooker, R.A., 147 (1998) 185
Warwick, P.E., see Taylor, R.N., 144 (1998) 73
Watanabe, K., see Yamada, R., 149 (1998) 99
Webb, S.D., see Koch, P.L., 152 (1998) 119
Weis, D., see Dejonghe, L., 144 (1998) 63
Wendt, I. and G. Haase, Dynamic double collector measurement with cup efficiency factor determination, 146 (1998) 99
White, J.W.C., see Vaughn, B.H., 152 (1998) 309
White, W., see Staudigel, H., 145 (1998) 153
White, W.M., see Salters, V.J.M., 145 (1998) 447
Whitehead, R.E., see Davies, J.F., 144 (1998) 97
Whitehouse, M.J., see Kamber, B.S., 148 (1998) 219
Williams-Jones, A.E., see Halter, W.E., 150 (1998) 1
Withers, A.C., B.J. Wood and M.R. Carroll, The OH content of pyrope at high pressure, 147 (1998) 161
Wolf, R.A., K.A. Farley and D.M. Kass, Modeling of the temperature sensitivity of the apatite (U–Th)/He thermochronometer, 148 (1998) 105
Wood, B.J., see Withers, A.C., 147 (1998) 161
Woodhead, J., see Powell, R., 148 (1998) 95

Yamada, R., T. Yoshioka, K. Watanabe, T. Tagami, H. Nakamura, T. Hashimoto and S. Nishimura, Comparison of experimental techniques to increase the number of measurable confined fission tracks in zircon, 149 (1998) 99
Yee, N., see Daughney, C.J., 144 (1998) 161
Yoshioka, T., see Yamada, R., 149 (1998) 99

Zentilli, M., see Reynolds, P., 148 (1998) 45
Zhai, J.P., see Min, M.Z., 144 (1998) 313
Zhang, R.Y., D. Rumble III, J.G. Liou and Q.C. Wang, Low $\delta^{18}O$, ultrahigh-P garnet-bearing mafic and ultramafic rocks from Dabie Shan, China, 150 (1998) 161
Zhu, X.-K., R.K. O'Nions and A.J. Gibb, SIMS analysis of U–Pb isotopes in monazite: matrix effects, 144 (1998) 305
Zhuravlev, D., see Geringer, G.J., 145 (1998) 17
Zorn, T., see Arnold, T., 151 (1998) 129
Zumberge, J.E., see Andrusevich, V.E., 152 (1998) 59

ELSEVIER

Chemical Geology 155 (1999) 361–376

CHEMICAL GEOLOGY
INCLUDING
ISOTOPE GEOSCIENCE

Subject index Volumes 144–152

$^{40}Ar/^{39}Ar$: geochronology; standards; calibration; errors (Renne, P.R. (145) 117)

Accelerator; Fission track; Confined track length; Thermal history; ^{252}Cf (Yamada, R. (149) 99)

Accretion; Earth–Moon system; Upper Earth (Javoy, M. (147) 11)

Acetate; Biogeochemistry; Pore water; Carbon; Free energy (Egeberg, P.K. (149) 25)

Acid drainage; Schwertmannite; *Thiobacillus ferrooxidans*; Goethite; Transformation; Lake Matsuo-Goshikinuma (Childs, C.W. (144) 81)

Adsorption; Bacteria; Metal; Comparison (Daughney, C.J. (144) 161)
Carboxylate; Corundum; Lead; Ternary surface complex (Boily, J.-F. (148) 157)

Adsorption/desorption on goethite; Batch and column experiments; Complexation with carbonate ions; Kinetics; Uranium(VI); Reactive transport model (Gabriel, U. (151) 107)

Aerosol particles; Bulk stable isotope analysis; Vegetation burns (Turekian, V.C. (152) 181)

Age; Archaean; Pb isotopes; Unradiogenic; Life (Kamber, B.S. (150) 19)

Age dating; Kerala Khondalite Belt; Monazite (Braun, I. (146) 65)

Al geochemistry; Ettringite; Solubility; Al-sulfates (Myneni, S.C.B. (148) 1)

Al–Si complexes; Aluminum; Stability constants; Solubility; Thermodynamic properties; HKF parameters (Salvi, S. (151) 51)

Al-ordering; Weathering; Raman spectroscopy; Albite (Frogner, P. (151) 161)

Al-sulfates; Ettringite; Solubility; Al geochemistry (Myneni, S.C.B. (148) 1)

Alaska; Exxon Valdez; Alaskan North Slope crude oil; Fuel oil; Carbon isotopic comparisons (Kvenvolden, K.A. (152) 73)

Alaskan North Slope crude oil; Alaska; Exxon Valdez; Fuel oil; Carbon isotopic comparisons (Kvenvolden, K.A. (152) 73)

Albite; Weathering; Raman spectroscopy; Al-ordering (Frogner, P. (151) 161)

Alkali feldspar; Elk Hills field; Kern County, California; Ar-40/Ar-39; Thermal history; Noble gas (Mahon, K.I. (152) 227)

Alkali-feldspar dissolution rates; Organic acid absorption (Oelkers, E.H. (151) 235)

Altendorf feldspathic sandstone; Thuringian basin; Cathodoluminescence microscopy (Götze, J. (150) 43)

Alteration; Ar/Ar dates; Porphyry copper; K-feldspar; Sericite; Biotite (Reynolds, P. (148) 45)
Water; Low-temperature; Water–rock interaction; Rare earths; Ferrihydrite (Bau, M. (151) 293)

Aluminium speciation; Reactive transport; Modelling; KIRMAT; Kinetic dissolution; Transition State Theory (Gérard, F. (151) 247)

Aluminum; Al–Si complexes; Stability constants; Solubility; Thermodynamic properties; HKF parameters (Salvi, S. (151) 51)

Ammonium; Continental crust; Precambrian; Nitrogen cycle; Moine succession; Biogeochemistry; Stable isotopes (Boyd, S.R. (144) 257)

Anhydrite; Sr isotope geochemistry; Pseudomorphs; Palaeozoic; Belgium (Dejonghe, L. (144) 63)

Annealing; Apatite; Fission tracks; Infra-red; Crystal structure (Siddall, R. (150) 181)

Anorogenic granite; Sm–Nd geochronology; Neodymium isotopes; Hydrothermal alteration; Fluid–rock interaction; Corsica (Poitrasson, F. (146) 187)

Anorthosite; Oranjekom; Plat Sjambok; Koperberg Suite (Geringer, G.J. (145) 17)

Antarctica; Oxygen isotopes; Polymetamorphism; Fluids (Krylov, D.P. (147) 295)

Anthophyllite; Diopside; Inosilicate; Dissolution; Kinetics; Experiment (Chen, Y. (147) 233)

Anthropogenic P loadings; Lake Erie; Molecular $\delta^{13}C$; Carbon isotopes; Sediment cores (Ostrom, P.H. (152) 163)

Antimony(III)-chloride solutions; X-ray adsorption fine structure (EXAFS) spectroscopy; Aqueous complexation; Hydrothermal solutions (Oelkers, E.H. (151) 21)

Apatite; He; Dating; Modeling (Wolf, R.A. (148) 105)
Fission tracks; Annealing; Infra-red; Crystal structure (Siddall, R. (150) 181)
Dissolution; Solubility; Phosphates; Metals; Lead; Cadmium (Valsami-Jones, E. (151) 215)

Aquatic chemistry; Equilibrium constants; Thermodynamic data; Constant ionic medium method; Potentiometry; Equilibrium analysis; Chemical modelling (Öhman, L.-O. (151) 41)

PII: S0009-2541(99)00018-2

Aqueous complex formation; Sodium-acetate; Dissociation constants; Hydrothermal solutions (Fournier, P. (151) 69)
Aqueous complexation; Antimony(III)-chloride solutions; X-ray adsorption fine structure (EXAFS) spectroscopy; Hydrothermal solutions (Oelkers, E.H. (151) 21)
Aqueous speciation; Yttrium; EXAFS; Water structure; REE; Polyatomic species (Ragnarsdottir, K.V. (151) 29)
Ar-40/Ar-39; Elk Hills field; Kern County, California; Thermal history; Noble gas; Alkali feldspar (Mahon, K.I. (152) 227)
Ar/Ar dates; Porphyry copper; Alteration; K-feldspar; Sericite; Biotite (Reynolds, P. (148) 45)
Archaean; Pb isotopes; Unradiogenic; Age; Life (Kamber, B.S. (150) 19)
Arcs; Carbon cycle; Mantle; Flux; Plumes (Marty, B. (145) 233)
Argon; Earth history; Mantle; Isotopes (Phipps Morgan, J. (145) 431)
Helium; Isotope signature (Hu, R. (146) 55)
Samoa; Xenoliths; Fluid inclusions; Helium (Burnard, P.G. (147) 99)
Olivine; Clinopyroxene; Partitioning; Ultra-violet laser ablation microprobe (Brooker, R.A. (147) 185)
Assimilation; Lau Basin; Oxygen isotopes; Magmatism; Subduction; Melting (Macpherson, C.G. (144) 177)
Asymmetric carbon center; Monosaccharides; Stable isotopic analysis; Carbohydrates; Gas chromatography; Combustion; Isotope ratio mass spectrometry (Macko, S.A. (152) 205)
Atmosphere; terrestrial volatiles; rare gases; nitrogen; evolution; mantle (Tolstikhin, I.N. (147) 27)
Atmospheric aerosols; Stable carbon isotopic compositions; Compound specific isotope analysis; Fatty acids; Biomass burning; C_4 and C_3 vegetation (Ballentine, D.C. (152) 151)
Atmospheric sulfur; Volcanic gases; Degassing (Graf, H.-F. (147) 131)
Atmosphere; terrestrial volatiles; rare gases; nitrogen; evolution; mantle (Tolstikhin, I.N. (147) 27)

Back arc; Nb; Ta; Fractionation; Cambrian arc; New Zealand; ICPMS (Münker, C. (144) 23)
Bacteria; Sulfide; Mackinawite; Sulfate; Surface; SEM; XPS; Spectroscopy (Herbert Jr., R.B. (144) 87)
Metal; Adsorption; Comparison (Daughney, C.J. (144) 161)
Barite (001); Precipitaion; Dissolution (Bosbach, D. (151) 143)
Basalt; Mantle; Carbon; Degassing (Holloway, J.R. (147) 89)
Tholeiites; Metasomatism (La Flèche, M.R. (148) 115)
Basaltic andesite; Water solubility; D/H fractionation (Pineau, F. (147) 173)
Batch and column experiments; Adsorption/desorption on goethite; Complexation with carbonate ions; Kinetics; Uranium(VI); Reactive transport model (Gabriel, U. (151) 107)
Bauxite; Reworking; Cookeite; Geochemistry; Rhaetian; Tuscany (Franceschelli, M. (144) 221)
Belgium; Sr isotope geochemistry; Anhydrite; Pseudomorphs; Palaeozoic (Dejonghe, L. (144) 63)
Biodegradation; Carbon isotopes; Calcite; Organic matter; Oxygen isotopes; Salt domes; Sulphate reduction (Bechtel, A. (144) 1)
Biogenic methane; $\delta^{13}C$; Marine sediments (Blair, N. (152) 139)
Biogenic-Al; Equatorial Indian Ocean; Sediment; Geochemistry; Elemental-Ba; Productivity (Banakar, V.K. (147) 217)
Biogeochemistry; Ammonium; Continental crust; Precambrian; Nitrogen cycle; Moine succession; Stable isotopes (Boyd, S.R. (144) 257)
Pore water; Acetate; Carbon; Free energy (Egeberg, P.K. (149) 25)
Biologic accumulation in sediments; ICP-MS after pyrohydrolysis; Very low I in metamorphic and magmatic rocks; Hydrothermal transport (Muramatsu, Y. (147) 201)
Biomass burning; Stable carbon isotopic compositions; Compound specific isotope analysis; Fatty acids; Atmospheric aerosols; C_4 and C_3 vegetation (Ballentine, D.C. (152) 151)
Biotite; Ar/Ar dates; Porphyry copper; Alteration; K-feldspar; Sericite (Reynolds, P. (148) 45)
Bitumen; kerogen; carbon stable isotopes; nitrogen isotopes; lead–zinc deposits; Peru (Spangenberg, J.E. (146) 1)
Black shale; Lower Proterozoic; Concretions; Sulphides; Carbonates; Stable isotope; Sulphur; Organic carbon; Diagenesis (Melezhik, V.A. (148) 61)
Bloedite; Playa lake; Early diagenesis; Epsomite; Salt precipitation sequences (Sánchez-Moral, S. (149) 189)
Box models; Mantle convection; Rare gases; Mantle geochemistry; Geochemical dynamics; Mantle tomography (Albarède, F. (145) 413)
Bulk stable isotope analysis; Vegetation burns; Aerosol particles (Turekian, V.C. (152) 181)
Bushveld Complex; Rare earth elements; Cumulate rocks; South Africa (Maier, W.D. (150) 85)

$\delta^{13}C$; Biogenic methane; Marine sediments (Blair, N. (152) 139)
$\delta^{13}C$; Polycyclic aromatic hydrocarbon; Creosote-contaminated site (Hammer, B.T. (152) 43)
^{252}Cf; Fission track; Confined track length; Thermal history; Accelerator (Yamada, R. (149) 99)
$\delta^{13}C$ values; Dissolved organic carbon; Sedimentary organic material (Fry, B. (152) 113)
C_4 and C_3 vegetation; Stable carbon isotopic compositions; Compound specific isotope analysis; Fatty acids; Biomass burning; Atmospheric aerosols (Ballentine, D.C. (152) 151)
C-13/C-12; Stable isotopes; O-18/O-16; Gaylussite; Nahcolite (Mees, F. (146) 87)
CO_2; Detrital aquifer; Thermal waters; Neotectonics; ^{18}O–D–^{13}C stable isotopes (Cerón, J.C. (149) 251)
CO_2 consumption; West Africa; Niger River; Hydrogeochemistry; Laterites; Chemical weathering; Mechanical erosion; Mass balance (Boeglin, J.-L. (148) 137)
Cadmium; Cryptomelane; Hollandite; Manganese oxides; EXAFS; Ion exchange (Randall, S.R. (151) 95)
Apatite; Dissolution; Solubility; Phosphates; Metals; Lead (Valsami-Jones, E. (151) 215)
Calcite; Biodegradation; Carbon isotopes; Organic matter; Oxygen isotopes; Salt domes; Sulphate reduction (Bechtel, A. (144) 1)
Limestone; Dissolution rates; Diffusion coefficients (Alkattan, M. (151) 199)
Weathering; Pyrite; Sulfate (Hercod, D.J. (151) 259)

Calcite cements; dilational jog; fluid inclusions; stable isotopes; strike-slip fault system (Muchez, P. (145) 105)

Calderas; Ignimbrites; Lithic fragments; Granitoids; Dolerites; Microdiorites; Magma chambers; Taupo Volcanic Zone (Brown, S.J.A. (148) 21)

Calibration; geochronology; $^{40}Ar/^{39}Ar$; standards; errors (Renne, P.R. (145) 117)

Cambrian; Ordovician; Strontium; Isotopes (Denison, R.E. (152) 325)

Cambrian arc; Nb; Ta; Fractionation; Back arc; New Zealand; ICPMS (Münker, C. (144) 23)

Carbohydrates; Monosaccharides; Stable isotopic analysis; Gas chromatography; Combustion; Isotope ratio mass spectrometry; Asymmetric carbon center (Macko, S.A. (152) 205)

Carbon; Geochemical cycles; Cenozoic; Model; Isotope; Weathering (François, L.M. (145) 177)

Noble gas; Core formation; Earth accretion; Volatile; Early earth (Tingle, T.N. (147) 3)

Mantle; Basalt; Degassing (Holloway, J.R. (147) 89)

Volatile; Water; Melt inclusion; Piton de la Fournaise; Degassing (Bureau, H. (147) 115)

Diamonds; Nitrogen; Isotopes; Mantle (Cartigny, P. (147) 147)

Biogeochemistry; Pore water; Acetate; Free energy (Egeberg, P.K. (149) 25)

Granite; Fracture fillings; Carbonates; Isotopes; Oxygen; Natural analogue (Reyes, E. (150) 293)

Carbon cycle; Mantle; Flux; Plumes; Arcs (Marty, B. (145) 233)

Carbon dioxide; Cenozoic; Degassing; Metamorphism; Orogenic belts (Kerrick, D.M. (145) 213)

Delta C-13; Exchange; Isotope fractionation; Dissolved CO_2 (Szaran, J. (150) 331)

Carbon isotope composition; Crude oil; Episodic changes (Andrusevich, V.E. (152) 59)

Carbon isotope ratio; Fatty acids; Seagrass; Redhead ducks (Hammer, B.T. (152) 29)

Carbon isotopes; Biodegradation; Calcite; Organic matter; Oxygen isotopes; Salt domes; Sulphate reduction (Bechtel, A. (144) 1)

Helium isotopes; Diamond; Mantle chemistry (Burgess, R. (146) 205)

Oxalate; Whewellite; Diagenesis; Organic acids (Hofmann, B.A. (149) 127)

Sedimentary organic matter; Nitrate; Lake Superior; Particulate organic matter; Nitrogen isotopes (Ostrom, N.E. (152) 13)

Lake Erie; Molecular $\delta^{13}C$; Anthropogenic P loadings; Sediment cores (Ostrom, P.H. (152) 163)

Carbon isotopic comparisons; Alaska; Exxon Valdez; Alaskan North Slope crude oil; Fuel oil (Kvenvolden, K.A. (152) 73)

Carbon stable isotopes; kerogen; bitumen; nitrogen isotopes; lead–zinc deposits; Peru (Spangenberg, J.E. (146) 1)

Carbonado; Diamond; Helium; Implantation; Diffusion (Shelkov, D.A. (149) 109)

Carbonate; REEs; Sr-isotope; Sedimentary; Exhalative (SEDEX) (Davies, J.F. (144) 97)

Carbonates; Lower Proterozoic; Concretions; Sulphides; Black shale; Stable isotope; Sulphur; Organic carbon; Diagenesis (Melezhik, V.A. (148) 61)

Granite; Fracture fillings; Isotopes; Carbon; Oxygen; Natural analogue (Reyes, E. (150) 293)

Carbonatite magmatism; Marinkas Quellen Carbonatite Complex; Continental setting (Smithies, R.H. (148) 201)

Carboxylate; Adsorption; Corundum; Lead; Ternary surface complex (Boily, J.-F. (148) 157)

Cathodoluminescence microscopy; Altendorf feldspathic sandstone; Thuringian basin (Götze, J. (150) 43)

Cellulose; Hydrogen isotope exchange; Thermal stress (Krishnamurthy, R.V. (152) 85)

Cenozoic; Geochemical cycles; Model; Isotope; Carbon; Weathering (François, L.M. (145) 177)

Carbon dioxide; Degassing; Metamorphism; Orogenic belts (Kerrick, D.M. (145) 213)

Central Italy; Petrology; Geochemistry and Sr–Nd isotopes; Ultrapotassic rocks; Lamproite; Crustal contamination (Conticelli, S. (149) 51)

Charnockites; NaCl–KCl brines; K-feldspar metasomatism; Replacement antiperthite; Granulites (Harlov, D.E. (151) 373)

Chemical components; Hydrogeochemistry; Confined acquifers; Partial CO_2 pressure (Coudrain-Ribstein, A. (145) 73)

Chemical composition; Fluid inclusion; Synchrotron radiation; X-ray microfluorescence (Philippot, P. (144) 119)

Chemical modelling; Aquatic chemistry; Equilibrium constants; Thermodynamic data; Constant ionic medium method; Potentiometry; Equilibrium analysis (Öhman, L.-O. (151) 41)

Chemical properties; Vitrinites; Physical properties (Jiménez, A. (150) 197)

Chemical tracers; Crustal fluids; Mineral surfaces; Spectroscopy (Ragnarsdottir, K.V. (151) 1)

Chemical weathering; West Africa; Niger River; Hydrogeochemistry; Laterites; Mechanical erosion; Mass balance; CO_2 consumption (Boeglin, J.-L. (148) 137)

Chondrite; Water cycle; Hydrogen isotopes; Seawater (Lécuyer, C. (145) 249)

Clinopyroxene; Argon; Olivine; Partitioning; Ultra-violet laser ablation microprobe (Brooker, R.A. (147) 185)

Clinopyroxene-magnetite pair; Kamafugites; Oxygen isotope thermometry (Sgarbi, P.B.A. (146) 115)

Clinopyroxenes; Diffusion; Pb (Cherniak, D.J. (150) 105)

Codissolution; Trace metals; Coprecipitation (Bruno, J. (151) 277)

Combustion; Monosaccharides; Stable isotopic analysis; Carbohydrates; Gas chromatography; Isotope ratio mass spectrometry; Asymmetric carbon center (Macko, S.A. (152) 205)

Comparison; Bacteria; Metal; Adsorption (Daughney, C.J. (144) 161)

Complexation with carbonate ions; Adsorption/desorption on goethite; Batch and column experiments; Kinetics; Uranium(VI); Reactive transport model (Gabriel, U. (151) 107)

Composition of lithosphere; Thermal structure; Thickness of lithosphere; Continental lithosphere; Lithosphere (Rudnick, R.L. (145) 395)

Compound specific isotope analysis; Stable carbon isotopic compositions; Fatty acids; Biomass burning; Atmospheric aerosols; C_4 and C_3 vegetation (Ballentine, D.C. (152) 151)

Concretions; Lower Proterozoic; Sulphides; Carbonates; Black shale; Stable isotope; Sulphur; Organic carbon; Diagenesis (Melezhik, V.A. (148) 61)

Confined acquifers; Hydrogeochemistry; Partial CO_2 pressure; Chemical components (Coudrain-Ribstein, A. (145) 73)

Confined track length; Fission track; Thermal history; Accelerator; ^{252}Cf (Yamada, R. (149) 99)

Constant ionic medium method; Aquatic chemistry; Equilibrium constants; Thermodynamic data; Potentiometry; Equilibrium analysis; Chemical modelling (Öhman, L.-O. (151) 41)

Continental crust; Ammonium; Precambrian; Nitrogen cycle; Moine succession; Biogeochemistry; Stable isotopes (Boyd, S.R. (144) 257)

Continental lithosphere; Thermal structure; Thickness of lithosphere; Composition of lithosphere; Lithosphere (Rudnick, R.L. (145) 395)

Continental setting; Marinkas Quellen Carbonatite Complex; Carbonatite magmatism (Smithies, R.H. (148) 201)

Cookeite; Bauxite; Reworking; Geochemistry; Rhaetian; Tuscany (Franceschelli, M. (144) 221)

Coprecipitation; Trace metals; Codissolution (Bruno, J. (151) 277)

Core formation; Earth accretion; Siderophile elements; Moon formation; Tungsten isotopes (Kramers, J.D. (145) 461)
Noble gas; Earth accretion; Carbon; Volatile; Early earth (Tingle, T.N. (147) 3)

Corsica; Sm–Nd geochronology; Neodymium isotopes; Anorogenic granite; Hydrothermal alteration; Fluid–rock interaction (Poitrasson, F. (146) 187)

Corundum; Adsorption; Carboxylate; Lead; Ternary surface complex (Boily, J.-F. (148) 157)

Creosote-contaminated site; $\delta^{13}C$; Polycyclic aromatic hydrocarbon (Hammer, B.T. (152) 43)

Crude oil; Carbon isotope composition; Episodic changes (Andrusevich, V.E. (152) 59)

Crustal contamination; Petrology; Geochemistry and Sr–Nd isotopes; Ultrapotassic rocks; Lamproite; Central Italy (Conticelli, S. (149) 51)

Crustal fluids; Mineral surfaces; Chemical tracers; Spectroscopy (Ragnarsdottir, K.V. (151) 1)

Cryptomelane; Cadmium; Hollandite; Manganese oxides; EXAFS; Ion exchange (Randall, S.R. (151) 95)

Crystal fragment; Geochronology; Zircon; Isotope dilution; Narryer Gneiss Complex (Amelin, Y.V. (146) 25)

Crystal structure; Apatite; Fission tracks; Annealing; Infra-red (Siddall, R. (150) 181)

Cumulate rocks; Rare earth elements; Bushveld Complex; South Africa (Maier, W.D. (150) 85)

Cup efficiency factor; Dynamic double collector measurement; Isotope fractionation (Wendt, I. (146) 99)

D/H fractionation; Water solubility; Basaltic andesite (Pineau, F. (147) 173)

Dabie Mountains; Oxygen isotope; In situ analysis; UHP ultramafics; Metasomatism (Zhang, R.Y. (150) 161)

Dating; Apatite; He; Modeling (Wolf, R.A. (148) 105)

Death Valley; Quaternary paleoclimates; Fluid inclusion paleotemperatures (Lowenstein, T.K. (150) 223)

Degassing; Carbon dioxide; Cenozoic; Metamorphism; Orogenic belts (Kerrick, D.M. (145) 213)
Mantle; Basalt; Carbon (Holloway, J.R. (147) 89)
Volatile; Water; Carbon; Melt inclusion; Piton de la Fournaise (Bureau, H. (147) 115)
Atmospheric sulfur; Volcanic gases (Graf, H.-F. (147) 131)
Helium isotopes; Icelandic plume; Volatile flux; Hydrothermal fluids (Hilton, D.R. (149) 173)
Helium; Earthquake; Isotope; Groundwater (Sano, Y. (150) 171)

Delta C-13; Carbon dioxide; Exchange; Isotope fractionation; Dissolved CO_2 (Szaran, J. (150) 331)

Denitrification; Nitrate; Lysimeter; Nitrogen isotopes; Mineralization; Nitrification (Ostrom, N.E. (146) 219)

Detrital aquifer; Thermal waters; Neotectonics; CO_2; ^{18}O–D–^{13}C stable isotopes (Cerón, J.C. (149) 251)

Deuterium; Isotopes; Mass spectroscopy; Hydrogen; Uranium; Sample preparation (Vaughn, B.H. (152) 309)
Hydrogen isotope ratios; Platinum; Hydrogen isotopes (Hopple, J.A. (152) 321)

Diagenesis; Lower Proterozoic; Concretions; Sulphides; Carbonates; Black shale; Stable isotope; Sulphur; Organic carbon (Melezhik, V.A. (148) 61)
Oxalate; Carbon isotopes; Whewellite; Organic acids (Hofmann, B.A. (149) 127)
Eastern Mediterranean; Sapropels; Sediments; Paleomagnetism; Pyritization (Passier, H.F. (152) 287)

Diamond; Helium isotopes; Carbon isotopes; Mantle chemistry (Burgess, R. (146) 205)
Helium; Carbonado; Implantation; Diffusion (Shelkov, D.A. (149) 109)

Diamonds; Carbon; Nitrogen; Isotopes; Mantle (Cartigny, P. (147) 147)

Differentiation of the Earth; (Staudigel, H. (145) 153)

Diffusion; Diamond; Helium; Carbonado; Implantation (Shelkov, D.A. (149) 109)
Pb; Clinopyroxenes (Cherniak, D.J. (150) 105)

Diffusion coefficients; Calcite; Limestone; Dissolution rates (Alkattan, M. (151) 199)

Diffusion infiltration; Fluid–rock interaction; Modeling; Greisenization; Mass transfer; East Kemptville (Halter, W.E. (150) 1)

Dilational jog; calcite cements; fluid inclusions; stable isotopes; strike-slip fault system (Muchez, P. (145) 105)

Diopside; Anthophyllite; Inosilicate; Dissolution; Kinetics; Experiment (Chen, Y. (147) 233)

Dissociation constants; Sodium-acetate; Aqueous complex formation; Hydrothermal solutions (Fournier, P. (151) 69)

Dissolution; Diopside; Anthophyllite; Inosilicate; Kinetics; Experiment (Chen, Y. (147) 233)
Precipitaion; Barite (001) (Bosbach, D. (151) 143)
Apatite; Solubility; Phosphates; Metals; Lead; Cadmium (Valsami-Jones, E. (151) 215)

Dissolution rates; Hornblende; Weathering; Non-stoichiometry; Leached layer; Surface alteration (Frogner, P. (151) 169)
Epidote; Kinetics; Weathering; Non-stoichiometry (Kalinowski, B.E. (151) 181)

Calcite; Limestone; Diffusion coefficients (Alkattan, M. (151) 199)

Dissolved CO_2; Carbon dioxide; Delta C-13; Exchange; Isotope fractionation (Szaran, J. (150) 331)

Dissolved organic carbon; $\delta^{13}C$ values; Sedimentary organic material (Fry, B. (152) 113)

Dolerites; Ignimbrites; Lithic fragments; Granitoids; Microdiorites; Magma chambers; Calderas; Taupo Volcanic Zone (Brown, S.J.A. (148) 21)

Dynamic double collector measurement; Cup efficiency factor; Isotope fractionation (Wendt, I. (146) 99)

Early Archean; Extreme Nd isotope heterogeneity; Rocks (Bennett, V.C. (148) 213)

Early diagenesis; Playa lake; Bloedite; Epsomite; Salt precipitation sequences (Sánchez-Moral, S. (149) 189)

Early earth; Noble gas; Core formation; Earth accretion; Carbon; Volatile (Tingle, T.N. (147) 3)

Earth accretion; Core formation; Siderophile elements; Moon formation; Tungsten isotopes (Kramers, J.D. (145) 461)
Noble gas; Core formation; Carbon; Volatile; Early earth (Tingle, T.N. (147) 3)

Earth history; Mantle; Isotopes; Argon (Phipps Morgan, J. (145) 431)

Earth's interior; Noble gas; Isotope (Kaneoka, I. (147) 61)

Earth–Moon system; Upper Earth; Accretion (Javoy, M. (147) 11)

Earthquake; Helium; Isotope; Degassing; Groundwater (Sano, Y. (150) 171)

East Greenland; Isotopes; Mineral deposits; Igneous rocks; Magma contamination; Tertiary (Jensen, S.M. (150) 119)

East Kemptville; Fluid–rock interaction; Modeling; Greisenization; Mass transfer; Diffusion infiltration (Halter, W.E. (150) 1)

East Pacific Rise; Hydrothermal sulfides; He and Ar isotopes; Mantle degassing (Stuart, F.M. (147) 77)

Eastern Mediterranean; Sapropels; Sediments; Diagenesis; Paleomagnetism; Pyritization (Passier, H.F. (152) 287)

Elemental-Ba; Equatorial Indian Ocean; Sediment; Geochemistry; Biogenic-Al; Productivity (Banakar, V.K. (147) 217)

Elevated temperature–pressure conditions; pH values; Fluid–mineral equilibria (Roberts, S.J. (146) 171)

Elk Hills field; Kern County, California; Ar-40/Ar-39; Thermal history; Noble gas; Alkali feldspar (Mahon, K.I. (152) 227)
Kern County, California; Ion probe; Stable isotopes; Thermal history, diagenesis (Mahon, K.I. (152) 257)

Epidote; Kinetics; Weathering; Dissolution rates; Non-stoichiometry (Kalinowski, B.E. (151) 181)

Episodic changes; Carbon isotope composition; Crude oil (Andrusevich, V.E. (152) 59)

Epsomite; Playa lake; Bloedite; Early diagenesis; Salt precipitation sequences (Sánchez-Moral, S. (149) 189)

Equatorial Indian Ocean; Sediment; Geochemistry; Elemental-Ba; Biogenic-Al; Productivity (Banakar, V.K. (147) 217)

Equilibrium analysis; Aquatic chemistry; Equilibrium constants; Thermodynamic data; Constant ionic medium method; Potentiometry; Chemical modelling (Öhman, L.-O. (151) 41)

Equilibrium constants; Aquatic chemistry; Thermodynamic data; Constant ionic medium method; Potentiometry; Equilibrium analysis; Chemical modelling (Öhman, L.-O. (151) 41)

Erosion rates; River waters; Sao Miguel (Louvat, P. (148) 177)

Errors; geochronology; $^{40}Ar/^{39}Ar$; standards; calibration (Renne, P.R. (145) 117)

Ettringite; Solubility; Al geochemistry; Al-sulfates (Myneni, S.C.B. (148) 1)

Evaporation; Salt lakes; Geochemistry; Lake sediments; Trace elements; Rare earths (Volkova, N.I. (147) 265)

Evaporite; Triassic; Fluid-inclusion; Sulfate isotope (Fanlo, I. (146) 135)

Everglades; Speciation and isotopic composition; Sedimentary sulfur (Bates, A.L. (146) 155)

Evolution; terrestrial volatiles; rare gases; nitrogen; mantle; atmosphere (Tolstikhin, I.N. (147) 27)

EXAFS; Yttrium; Aqueous speciation; Water structure; REE; Polyatomic species (Ragnarsdottir, K.V. (151) 29)
Cadmium; Cryptomelane; Hollandite; Manganese oxides; Ion exchange (Randall, S.R. (151) 95)

Exchange; Carbon dioxide; Delta C-13; Isotope fractionation; Dissolved CO_2 (Szaran, J. (150) 331)

Exhalative (SEDEX); REEs; Sr-isotope; Carbonate; Sedimentary (Davies, J.F. (144) 97)

Experiment; Diopside; Anthophyllite; Inosilicate; Dissolution; Kinetics (Chen, Y. (147) 233)

Extreme Nd isotope heterogeneity; Early Archean; Rocks (Bennett, V.C. (148) 213)

Exxon Valdez; Alaska; Alaskan North Slope crude oil; Fuel oil; Carbon isotopic comparisons (Kvenvolden, K.A. (152) 73)

Fatty acids; Carbon isotope ratio; Seagrass; Redhead ducks (Hammer, B.T. (152) 29)
Stable carbon isotopic compositions; Compound specific isotope analysis; Biomass burning; Atmospheric aerosols; C_4 and C_3 vegetation (Ballentine, D.C. (152) 151)

Fe(II); Surface catalysis; Reduction; Nitrobenzene; Uranium; Magnetite; Lepidocrocite (Charlet, L. (151) 85)

Ferrihydrite; Phyllite; Sorption; Uranium (Arnold, T. (151) 129)
Water; Alteration; Low-temperature; Water–rock interaction; Rare earths (Bau, M. (151) 293)

Fission track; Confined track length; Thermal history; Accelerator; ^{252}Cf (Yamada, R. (149) 99)

Fission tracks; Apatite; Annealing; Infra-red; Crystal structure (Siddall, R. (150) 181)

Fluid inclusion; Chemical composition; Synchrotron radiation; X-ray microfluorescence (Philippot, P. (144) 119)

Fluid inclusions; calcite cements; dilational jog; stable isotopes; strike-slip fault system (Muchez, P. (145) 105)

Fluid inclusion paleotemperatures; Quaternary paleoclimates; Death Valley (Lowenstein, T.K. (150) 223)

Fluid inclusions; Samoa; Xenoliths; Helium; Argon (Burnard, P.G. (147) 99)

Fluid–mineral equilibria; pH values; Elevated temperature–pressure conditions (Roberts, S.J. (146) 171)

Fluid–rock interaction; Sm–Nd geochronology; Neodymium isotopes; Anorogenic granite; Hydrothermal alteration; Corsica (Poitrasson, F. (146) 187)

Modeling; Greisenization; Mass transfer; Diffusion infiltration; East Kemptville (Halter, W.E. (150) 1)

Fluid-inclusion; Evaporite; Triassic; Sulfate isotope (Fanlo, I. (146) 135)

Fluids; Oxygen isotopes; Polymetamorphism; Antarctica (Krylov, D.P. (147) 295)
Madagascar; Granulite-facies; Protoliths; Stable isotopes (Boulvais, P. (150) 247)

Flux; Carbon cycle; Mantle; Plumes; Arcs (Marty, B. (145) 233)

Fluxes; Transfer dynamics; Geochemical reservoirs; Residence time; Geochemical cycles (Staudigel, H. (145) 153)

Food web; Nitrogen isotopes; Strontium isotopes; Water pollution; Salmon, Vermont (Harrington, R.R. (147) 281)

Fossil organic component; $^{129}I/^{127}I$ ratios; Marine sediments; Hydrosphere; Kerogen; Global carbon cycle (Moran, J.E. (152) 193)

Fractionation; Nb; Ta; Cambrian arc; Back arc; New Zealand; ICPMS (Münker, C. (144) 23)
Sulfur isotope; Iron(II) sulfide; Manganese(II) sulfide (Böttcher, M.E. (146) 127)

Fracture fillings; Granite; Carbonates; Isotopes; Carbon; Oxygen; Natural analogue (Reyes, E. (150) 293)

Free energy; Biogeochemistry; Pore water; Acetate; Carbon (Egeberg, P.K. (149) 25)

Fuel oil; Alaska; Exxon Valdez; Alaskan North Slope crude oil; Carbon isotopic comparisons (Kvenvolden, K.A. (152) 73)

Gadolinium; Rare earth elements; Lanthanum; Hydrolysis; La–acetate complexes; Solubility; Potentiometry; Thermodynamic properties (Deberdt, S. (151) 349)

Gamma-ray neutron activation analysis; Thermal-neutron intensities; Irradiation geometry; Soil type (Shue, S.L. (144) 47)

Gas chromatography; Monosaccharides; Stable isotopic analysis; Carbohydrates; Combustion; Isotope ratio mass spectrometry; Asymmetric carbon center (Macko, S.A. (152) 205)

Gaylussite; Stable isotopes; O-18/O-16; C-13/C-12; Nahcolite (Mees, F. (146) 87)

Geochemical cycles; Transfer dynamics; Fluxes; Geochemical reservoirs; Residence time (Staudigel, H. (145) 153)
Quantitative models; Mass balance (Lasaga, A.C. (145) 161)
Cenozoic; Model; Isotope; Carbon; Weathering (François, L.M. (145) 177)

Geochemical dynamics; Mantle convection; Rare gases; Box models; Mantle geochemistry; Mantle tomography (Albarède, F. (145) 413)

Geochemical reservoirs; Transfer dynamics; Fluxes; Residence time; Geochemical cycles (Staudigel, H. (145) 153)

Geochemical tracer; Li isotope; High-precision isotope analysis; TIMS; Li phosphate; Recovery yield (Moriguti, T. (145) 91)

Geochronology; $^{40}Ar/^{39}Ar$; standards; calibration; errors (Renne, P.R. (145) 117)

Geochemistry; Oxygen isotopes; Silicates; Laser fluorination; Quartz (Spicuzza, M.J. (144) 195)
Bauxite; Reworking; Cookeite; Rhaetian; Tuscany (Franceschelli, M. (144) 221)
Grande Comore volcanoes; Isotopes; Heterogeneities; LoNd; Plume–lithosphere interactions (Deniel, C. (144) 281)
Helium; Neon; Steady-state model; Rare gas; Mantle (Moreira, M. (147) 53)
Equatorial Indian Ocean; Sediment; Elemental-Ba; Biogenic-Al; Productivity (Banakar, V.K. (147) 217)
Salt lakes; Lake sediments; Trace elements; Rare earths; Evaporation (Voikova, N.I. (147) 265)
Sr isotopes; Major elements; Trace elements; Watersheds; Water dynamics; Hérault (southern France) (Petelet, E. (150) 63)
Water dynamics; Trace metals; Pb–Sr isotopes (Luck, J.-M. (150) 263)

Geochemistry and Sr–Nd isotopes; Petrology; Ultrapotassic rocks; Lamproite; Crustal contamination; Central Italy (Conticelli, S. (149) 51)

Geochronology; Matrix effects; SIMS chronometry; Monazite; U–Pb isotopes (Zhu, X.-K. (144) 305)
Zircon; Isotope dilution; Crystal fragment; Narryer Gneiss Complex (Amelin, Y.V. (146) 25)

Geothermometry; Monazite; Xenotime; REE-partitioning; Hydrothermal experiments (Andrehs, G. (149) 83)

Glacier Bay, Alaska; N dynamics; N isotopes (Hobbie, E.A. (152) 3)

Global carbon cycle; $^{129}I/^{127}I$ ratios; Marine sediments; Fossil organic component; Hydrosphere; Kerogen (Moran, J.E. (152) 193)

Goethite; Schwertmannite; *Thiobacillus ferrooxidans*; Transformation; Lake Matsuo-Goshikinuma; Acid drainage (Childs, C.W. (144) 81)

Grande Comore volcanoes; Geochemistry; Isotopes; Heterogeneities; LoNd; Plume–lithosphere interactions (Deniel, C. (144) 281)

Granite; Uranium deposit; Radionuclide; Natural analogue (Min, M.Z. (144) 313)
Fracture fillings; Carbonates; Isotopes; Carbon; Oxygen; Natural analogue (Reyes, E. (150) 293)

Granitoids; Ignimbrites; Lithic fragments; Dolerites; Microdiorites; Magma chambers; Calderas; Taupo Volcanic Zone (Brown, S.J.A. (148) 21)

Granulite-facies; Madagascar; Protoliths; Fluids; Stable isotopes (Boulvais, P. (150) 247)

Granulites; NaCl–KCl brines; K-feldspar metasomatism; Replacement antiperthite; Charnockites (Harlov, D.E. (151) 373)

Greisenization; Fluid–rock interaction; Modeling; Mass transfer; Diffusion infiltration; East Kemptville (Halter, W.E. (150) 1)

Groundwater; Helium; Earthquake; Isotope; Degassing (Sano, Y. (150) 171)

Gypsum; New Caledonia; S isotopes; Sr isotopes; Rare earth elements (Toulkeridis, T. (145) 61)

He; Apatite; Dating; Modeling (Wolf, R.A. (148) 105)

He and Ar isotopes; East Pacific Rise; Hydrothermal sulfides; Mantle degassing (Stuart, F.M. (147) 77)

Hérault (southern France); Sr isotopes; Major elements; Trace elements; Watersheds; Geochemistry; Water dynamics (Petelet, E. (150) 63)

Heavy metal partitioning; Redox stratification; Mangrove sediments; *Avicennia* (Clark, M.W. (149) 147)

Helium; Argon; Isotope signature (Hu, R. (146) 55)
Neon; Steady-state model; Rare gas; Mantle; Geochemistry (Moreira, M. (147) 53)

Samoa; Xenoliths; Fluid inclusions; Argon (Burnard, P.G. (147) 99)
Diamond; Carbonado; Implantation; Diffusion (Shelkov, D.A. (149) 109)
Earthquake; Isotope; Degassing; Groundwater (Sano, Y. (150) 171)

Helium isotopes; Carbon isotopes; Diamond; Mantle chemistry (Burgess, R. (146) 205)
Icelandic plume; Degassing; Volatile flux; Hydrothermal fluids (Hilton, D.R. (149) 173)

Herbivore teeth; Oxygen isotope composition; Kenya (Kohn, M.J. (152) 97)

Heterogeneities; Grande Comore volcanoes; Geochemistry; Isotopes; LoNd; Plume–lithosphere interactions (Deniel, C. (144) 281)

Hf isotope constraints; Isotope constraints; Mantle evolution (Salters, V.J.M. (145) 447)

High pressures; Molecular dynamics; Simulations; NaCl solutions; High temperatures (Brodholt, J.P. (151) 11)

High temperatures; Molecular dynamics; Simulations; NaCl solutions; High pressures (Brodholt, J.P. (151) 11)

High-precision isotope analysis; Li isotope; Geochemical tracer; TIMS; Li phosphate; Recovery yield (Moriguti, T. (145) 91)

Himalayan rivers; Weathering; Strontium isotopes (Harris, N. (144) 205)

HKF parameters; Aluminum; Al–Si complexes; Stability constants; Solubility; Thermodynamic properties (Salvi, S. (151) 51)

Hollandite; Cadmium; Cryptomelane; Manganese oxides; EXAFS; Ion exchange (Randall, S.R. (151) 95)

Hornblende; Weathering; Dissolution rates; Non-stoichiometry; Leached layer; Surface alteration (Frogner, P. (151) 169)

Hydrocarbon gas; Pyrolysis; Type II kerogen; Isotope fractionation; Residence time (Lorant, F. (147) 249)

Hydrogen; Isotopes; Mass spectroscopy; Deuterium; Uranium; Sample preparation (Vaughn, B.H. (152) 309)

Hydrogen index; Organic carbon; Oxygen-minimum zone; Preservation; Slope currents (Arthur, M.A. (152) 273)

Hydrogen isotope exchange; Cellulose; Thermal stress (Krishnamurthy, R.V. (152) 85)

Hydrogen isotope ratios; Deuterium; Platinum; Hydrogen isotopes (Hopple, J.A. (152) 321)

Hydrogen isotopes; Water cycle; Seawater; Chondrite (Lécuyer, C. (145) 249)
Hydrogen isotope ratios; Deuterium; Platinum (Hopple, J.A. (152) 321)

Hydrogeochemistry; Confined acquifers; Partial CO_2 pressure; Chemical components (Coudrain-Ribstein, A. (145) 73)
West Africa; Niger River; Laterites; Chemical weathering; Mechanical erosion; Mass balance; CO_2 consumption (Boeglin, J.-L. (148) 137)

Hydrology; Stable isotopes; Tropical cyclones; Paleoclimatology (Lawrence, J.R. (144) 151)

Hydrolysis; Rare earth elements; Lanthanum; Gadolinium; La–acetate complexes; Solubility; Potentiometry; Thermodynamic properties (Deberdt, S. (151) 349)

Hydrosphere; $^{129}I/^{127}I$ ratios; Marine sediments; Fossil organic component; Kerogen; Global carbon cycle (Moran, J.E. (152) 193)

Hydrothermal alteration; Sm–Nd geochronology; Neodymium isotopes; Anorogenic granite; Fluid–rock interaction; Corsica (Poitrasson, F. (146) 187)
Leaching; Rare earths; Oceanic crust; Hydrothermal vents; ODP site 504B (Bach, W. (151) 309)

Hydrothermal experiments; Monazite; Xenotime; REE-partitioning; Geothermometry (Andrehs, G. (149) 83)

Hydrothermal fluids; Helium isotopes; Icelandic plume; Degassing; Volatile flux (Hilton, D.R. (149) 173)

Hydrothermal solutions; Antimony(III)-chloride solutions; X-ray adsorption fine structure (EXAFS) spectroscopy; Aqueous complexation (Oelkers, E.H. (151) 21)
Sodium-acetate; Dissociation constants; Aqueous complex formation (Fournier, P. (151) 69)

Hydrothermal sulfides; East Pacific Rise; He and Ar isotopes; Mantle degassing (Stuart, F.M. (147) 77)

Hydrothermal transport; ICP-MS after pyrohydrolysis; Biologic accumulation in sediments; Very low I in metamorphic and magmatic rocks (Muramatsu, Y. (147) 201)

Hydrothermal vents; Leaching; Rare earths; Hydrothermal alteration; Oceanic crust; ODP site 504B (Bach, W. (151) 309)

Hydroxides; Rare earth elements; Thermodynamic properties; Solubility (Diakonov, I.I. (151) 327)

Hydroxyl ion; Mantle; Pyrope; Pressure; Infrared spectroscopy (Withers, A.C. (147) 161)

$^{129}I/^{127}I$ ratios; Marine sediments; Fossil organic component; Hydrosphere; Kerogen; Global carbon cycle (Moran, J.E. (152) 193)

ICP–MS; Pb-isotope; TIMS; Sulphide; Rio Tinto (Pomiès, C. (144) 135)

ICP-MS after pyrohydrolysis; Biologic accumulation in sediments; Very low I in metamorphic and magmatic rocks; Hydrothermal transport (Muramatsu, Y. (147) 201)

ICPMS; Nb; Ta; Fractionation; Cambrian arc; Back arc; New Zealand (Münker, C. (144) 23)

Iceland; O-18/O-16; Rift zone; Oceanic crust (Gautason, B. (145) 275)

Icelandic plume; Helium isotopes; Degassing; Volatile flux; Hydrothermal fluids (Hilton, D.R. (149) 173)

Igneous rocks; Isotopes; Mineral deposits; Magma contamination; Tertiary; East Greenland (Jensen, S.M. (150) 119)

Ignimbrites; Lithic fragments; Granitoids; Dolerites; Microdiorites; Magma chambers; Calderas; Taupo Volcanic Zone (Brown, S.J.A. (148) 21)

Implantation; Diamond; Helium; Carbonado; Diffusion (Shelkov, D.A. (149) 109)

In situ analysis; Oxygen isotope; UHP ultramafics; Metasomatism; Dabie Mountains (Zhang, R.Y. (150) 161)

In-situ Os isotopic analysis; Iridosmine; Multiple collector ICPMS; Laser ablation (Hirata, T. (144) 269)

Infra-red; Apatite; Fission tracks; Annealing; Crystal structure (Siddall, R. (150) 181)

Infrared spectroscopy; Mantle; Pyrope; Pressure; Hydroxyl ion (Withers, A.C. (147) 161)

Inosilicate; Diopside; Anthophyllite; Dissolution; Kinetics; Experiment (Chen, Y. (147) 233)

Intercalibration; K–Ar dating; Unspiked technique; Standard minerals; Statistical treatment; Jacknife method (Charbit, S. (150) 147)

Ion exchange; Cadmium; Cryptomelane; Hollandite; Manganese oxides; EXAFS (Randall, S.R. (151) 95)

Ion probe; Elk Hills field; Kern County, California; Stable isotopes; Thermal history, diagenesis (Mahon, K.I. (152) 257)

Iridosmine; In-situ Os isotopic analysis; Multiple collector ICPMS; Laser ablation (Hirata, T. (144) 269)

Iron(II) sulfide; Fractionation; Sulfur isotope; Manganese(II) sulfide (Böttcher, M.E. (146) 127)

Irradiation geometry; Thermal-neutron intensities; Soil type; Gamma-ray neutron activation analysis (Shue, S.L. (144) 47)

Isochron; Mediterranean sapropels; Uranium; ^{230}Th/U-series dating; Post-depositional diagenesis (Severmann, S. (150) 317)

Isotope; Geochemical cycles; Cenozoic; Model; Carbon; Weathering (François, L.M. (145) 177)

Noble gas; Earth's interior (Kaneoka, I. (147) 61)

Helium; Earthquake; Degassing; Groundwater (Sano, Y. (150) 171)

Isotope constraints; Hf isotope constraints; Mantle evolution (Salters, V.J.M. (145) 447)

Isotope dilution; Geochronology; Zircon; Crystal fragment; Narryer Gneiss Complex (Amelin, Y.V. (146) 25)

Isotope fractionation; Cup efficiency factor; Dynamic double collector measurement (Wendt, I. (146) 99)

Hydrocarbon gas; Pyrolysis; Type II kerogen; Residence time (Lorant, F. (147) 249)

Methane; Natural gas; Reaction kinetics; West Siberia; Pokur formation (Cramer, B. (149) 235)

Carbon dioxide; Delta C-13; Exchange; Dissolved CO_2 (Szaran, J. (150) 331)

Isotope ratio mass spectrometry; Monosaccharides; Stable isotopic analysis; Carbohydrates; Gas chromatography; Combustion; Asymmetric carbon center (Macko, S.A. (152) 205)

Isotope signature; Argon; Helium (Hu, R. (146) 55)

Isotopes; Uranium; Soils; Thermal ionisation mass spectrometry (Taylor, R.N. (144) 73)

Grande Comore volcanoes; Geochemistry; Heterogeneities; LoNd; Plume–lithosphere interactions (Deniel, C. (144) 281)

Earth history; Mantle; Argon (Phipps Morgan, J. (145) 431)

Diamonds; Carbon; Nitrogen; Mantle (Cartigny, P. (147) 147)

Mineral deposits; Igneous rocks; Magma contamination; Tertiary; East Greenland (Jensen, S.M. (150) 119)

Granite; Fracture fillings; Carbonates; Carbon; Oxygen; Natural analogue (Reyes, E. (150) 293)

Mass spectroscopy; Hydrogen; Deuterium; Uranium; Sample preparation (Vaughn, B.H. (152) 309)

Cambrian; Ordovician; Strontium (Denison, R.E. (152) 325)

Isotopic ecology; Late Pleistocene mammals; North America (Koch, P.L. (152) 119)

Isotopic exchange; Vapor pressure; Water; Water vapor (Ingraham, N.L. (150) 287)

Jacknife method; K–Ar dating; Unspiked technique; Standard minerals; Intercalibration; Statistical treatment (Charbit, S. (150) 147)

K–Ar dating; Unspiked technique; Standard minerals; Intercalibration; Statistical treatment; Jacknife method (Charbit, S. (150) 147)

K-feldspar; Ar/Ar dates; Porphyry copper; Alteration; Sericite; Biotite (Reynolds, P. (148) 45)

K-feldspar metasomatism; NaCl–KCl brines; Replacement antiperthite; Granulites; Charnockites (Harlov, D.E. (151) 373)

KIRMAT; Reactive transport; Modelling; Kinetic dissolution; Transition State Theory; Aluminium speciation (Gérard, F. (151) 247)

KTB; Titanite fission-track; Partial annealing zone (Coyle, D.A. (149) 117)

Kamafugites; Clinopyroxene-magnetite pair; Oxygen isotope thermometry (Sgarbi, P.B.A. (146) 115)

Kenya; Oxygen isotope composition; Herbivore teeth (Kohn, M.J. (152) 97)

Kerala Khondalite Belt; Monazite; Age dating (Braun, I. (146) 65)

Kern County, California; Elk Hills field; Ar-40/Ar-39; Thermal history; Noble gas; Alkali feldspar (Mahon, K.I. (152) 227)

Elk Hills field; Ion probe; Stable isotopes; Thermal history, diagenesis (Mahon, K.I. (152) 257)

Kerogen; ^{129}I/^{127}I ratios; Marine sediments; Fossil organic component; Hydrosphere; Global carbon cycle (Moran, J.E. (152) 193)

Bitumen; carbon stable isotopes; nitrogen isotopes; lead–zinc deposits; Peru (Spangenberg, J.E. (146) 1)

Kinetic dissolution; Reactive transport; Modelling; KIRMAT; Transition State Theory; Aluminium speciation (Gérard, F. (151) 247)

Kinetics; Diopside; Anthophyllite; Inosilicate; Dissolution; Experiment (Chen, Y. (147) 233)

Adsorption/desorption on goethite; Batch and column experiments; Complexation with carbonate ions; Uranium(VI); Reactive transport model (Gabriel, U. (151) 107)

Epidote; Weathering; Dissolution rates; Non-stoichiometry (Kalinowski, B.E. (151) 181)

Koperberg Suite; Anorthosite; Oranjekom; Plat Sjambok (Geringer, G.J. (145) 17)

La–acetate complexes; Rare earth elements; Lanthanum; Gadolinium; Hydrolysis; Solubility; Potentiometry; Thermodynamic properties (Deberdt, S. (151) 349)

Lacustrine environments; Ostracods; Mg/Ca ratios (Wansard, G. (146) 39)

Lake Erie; Molecular δ^{13}C; Anthropogenic P loadings; Carbon isotopes; Sediment cores (Ostrom, P.H. (152) 163)

Lake Matsuo-Goshikinuma; Schwertmannite; *Thiobacillus ferrooxidans*; Goethite; Transformation; Acid drainage (Childs, C.W. (144) 81)

Lake Superior; Sedimentary organic matter; Nitrate; Particulate organic matter; Nitrogen isotopes; Carbon isotopes (Ostrom, N.E. (152) 13)

Lake sediments; Salt lakes; Geochemistry; Trace elements; Rare earths; Evaporation (Volkova, N.I. (147) 265)

Lamproite; Petrology; Geochemistry and Sr–Nd isotopes; Ultrapotassic rocks; Crustal contamination; Central Italy (Conticelli, S. (149) 51)

Lanthanum; Rare earth elements; Gadolinium; Hydrolysis; La–acetate complexes; Solubility; Potentiometry; Thermodynamic properties (Deberdt, S. (151) 349)

Laser ablation; In-situ Os isotopic analysis; Iridosmine; Multiple collector ICPMS (Hirata, T. (144) 269)

Laser fluorination; Geochemistry; Oxygen isotopes; Silicates; Quartz (Spicuzza, M.J. (144) 195)

Late Pleistocene mammals; Isotopic ecology; North America (Koch, P.L. (152) 119)

Laterites; West Africa; Niger River; Hydrogeochemistry; Chemical weathering; Mechanical erosion; Mass balance; CO_2 consumption (Boeglin, J.-L. (148) 137)

Lau Basin; Oxygen isotopes; Magmatism; Subduction; Melting; Assimilation (Macpherson, C.G. (144) 177)

Leached layer; Hornblende; Weathering; Dissolution rates; Non-stoichiometry; Surface alteration (Frogner, P. (151) 169)

Leaching; Rare earths; Hydrothermal alteration; Oceanic crust; Hydrothermal vents; ODP site 504B (Bach, W. (151) 309)

Lead; Adsorption; Carboxylate; Corundum; Ternary surface complex (Boily, J.-F. (148) 157)

Apatite; Dissolution; Solubility; Phosphates; Metals; Cadmium (Valsami-Jones, E. (151) 215)

Lead–zinc deposits; kerogen; bitumen; carbon stable isotopes; nitrogen isotopes; Peru (Spangenberg, J.E. (146) 1)

Lepidocrocite; Surface catalysis; Reduction; Fe(II); Nitrobenzene; Uranium; Magnetite (Charlet, L. (151) 85)

Li isotope; Geochemical tracer; High-precision isotope analysis; TIMS; Li phosphate; Recovery yield (Moriguti, T. (145) 91)

Li phosphate; Li isotope; Geochemical tracer; High-precision isotope analysis; TIMS; Recovery yield (Moriguti, T. (145) 91)

Life; Archaean; Pb isotopes; Unradiogenic; Age (Kamber, B.S. (150) 19)

Limestone; Calcite; Dissolution rates; Diffusion coefficients (Alkattan, M. (151) 199)

Lithic fragments; Ignimbrites; Granitoids; Dolerites; Microdiorites; Magma chambers; Calderas; Taupo Volcanic Zone (Brown, S.J.A. (148) 21)

Lithosphere; Thermal structure; Thickness of lithosphere; Composition of lithosphere; Continental lithosphere (Rudnick, R.L. (145) 395)

LoNd; Grande Comore volcanoes; Geochemistry; Isotopes; Heterogeneities; Plume–lithosphere interactions (Deniel, C. (144) 281)

Low-temperature; Water; Alteration; Water–rock interaction; Rare earths; Ferrihydrite (Bau, M. (151) 293)

Lower Proterozoic; Concretions; Sulphides; Carbonates; Black shale; Stable isotope; Sulphur; Organic carbon; Diagenesis (Melezhik, V.A. (148) 61)

Lu–Hf isotopes; MORB; OIB; Plumes; Mass spectrometry (Nowell, G.M. (149) 211)

Lysimeter; Nitrate; Nitrogen isotopes; Mineralization; Nitrification; Denitrification (Ostrom, N.E. (146) 219)

MORB; Lu–Hf isotopes; OIB; Plumes; Mass spectrometry (Nowell, G.M. (149) 211)

Mackinawite; Sulfide; Sulfate; Bacteria; Surface; SEM; XPS; Spectroscopy (Herbert Jr., R.B. (144) 87)

Madagascar; Granulite-facies; Protoliths; Fluids; Stable isotopes (Boulvais, P. (150) 247)

Magma chambers; Ignimbrites; Lithic fragments; Granitoids; Dolerites; Microdiorites; Calderas; Taupo Volcanic Zone (Brown, S.J.A. (148) 21)

Magma contamination; Isotopes; Mineral deposits; Igneous rocks; Tertiary; East Greenland (Jensen, S.M. (150) 119)

Magmatism; Lau Basin; Oxygen isotopes; Subduction; Melting; Assimilation (Macpherson, C.G. (144) 177)

Magnetite; Surface catalysis; Reduction; Fe(II); Nitrobenzene; Uranium; Lepidocrocite (Charlet, L. (151) 85)

Major elements; Sr isotopes; Trace elements; Watersheds; Geochemistry; Water dynamics; Hérault (southern France) (Petelet, E. (150) 63)

Manganese oxides; Cadmium; Cryptomelane; Hollandite; EXAFS; Ion exchange (Randall, S.R. (151) 95)

Manganese(II) sulfide; Fractionation; Sulfur isotope; Iron(II) sulfide (Böttcher, M.E. (146) 127)

Mangrove sediments; Heavy metal partitioning; Redox stratification; *Avicennia* (Clark, M.W. (149) 147)

Mantle; Carbon cycle; Flux; Plumes; Arcs (Marty, B. (145) 233)

Earth history; Isotopes; Argon (Phipps Morgan, J. (145) 431)

Helium; Neon; Steady-state model; Rare gas; Geochemistry (Moreira, M. (147) 53)

Basalt; Carbon; Degassing (Holloway, J.R. (147) 89)

Diamonds; Carbon; Nitrogen; Isotopes (Cartigny, P. (147) 147)

Pyrope; Pressure; Hydroxyl ion; Infrared spectroscopy (Withers, A.C. (147) 161)

Mantle; terrestrial volatiles; rare gases; nitrogen; evolution; atmosphere (Tolstikhin, I.N. (147) 27)

Mantle chemistry; Helium isotopes; Carbon isotopes; Diamond (Burgess, R. (146) 205)

Mantle convection; Rare gases; Box models; Mantle geochemistry; Geochemical dynamics; Mantle tomography (Albarède, F. (145) 413)

Mantle geochemistry; Mantle layering; Mantle transition zone; Sea floor topography (Davies, G.F. (145) 479)

Mantle degassing; East Pacific Rise; Hydrothermal sulfides; He and Ar isotopes (Stuart, F.M. (147) 77)

Mantle evolution; Hf isotope constraints; Isotope constraints (Salters, V.J.M. (145) 447)

Mantle geochemistry; Mantle convection; Rare gases; Box models; Geochemical dynamics; Mantle tomography (Albarède, F. (145) 413)

Mantle convection; Mantle layering; Mantle transition zone; Sea floor topography (Davies, G.F. (145) 479)

Mantle layering; Mantle convection; Mantle geochemistry; Mantle transition zone; Sea floor topography (Davies, G.F. (145) 479)

Mantle tomography; Mantle convection; Rare gases; Box models; Mantle geochemistry; Geochemical dynamics (Albarède, F. (145) 413)

Mantle transition zone; Mantle convection; Mantle geochemistry; Mantle layering; Sea floor topography (Davies, G.F. (145) 479)

Marine sediments; $\delta^{13}C$; Biogenic methane (Blair, N. (152) 139)
$^{129}I/^{127}I$ ratios; Fossil organic component; Hydrosphere; Kerogen; Global carbon cycle (Moran, J.E. (152) 193)
Marinkas Quellen Carbonatite Complex; Carbonatite magmatism; Continental setting (Smithies, R.H. (148) 201)
Mass balance; Quantitative models; Geochemical cycles (Lasaga, A.C. (145) 161)
West Africa; Niger River; Hydrogeochemistry; Laterites; Chemical weathering; Mechanical erosion; CO_2 consumption (Boeglin, J.-L. (148) 137)
Mass spectrometry; Lu–Hf isotopes; MORB; OIB; Plumes (Nowell, G.M. (149) 211)
Mass spectroscopy; Isotopes; Hydrogen; Deuterium; Uranium; Sample preparation (Vaughn, B.H. (152) 309)
Mass transfer; Fluid–rock interaction; Modeling; Greisenization; Diffusion infiltration; East Kemptville (Halter, W.E. (150) 1)
Matrix effects; SIMS chronometry; Monazite; U–Pb isotopes; Geochronology (Zhu, X.-K. (144) 305)
Mechanical erosion; West Africa; Niger River; Hydrogeochemistry; Laterites; Chemical weathering; Mass balance; CO_2 consumption (Boeglin, J.-L. (148) 137)
Mediterranean sapropels; Uranium; $^{230}Th/U$-series dating; Isochron; Post-depositional diagenesis (Severmann, S. (150) 317)
Melt inclusion; Volatile; Water; Carbon; Piton de la Fournaise; Degassing (Bureau, H. (147) 115)
Melting; Lau Basin; Oxygen isotopes; Magmatism; Subduction; Assimilation (Macpherson, C.G. (144) 177)
Metal; Bacteria; Adsorption; Comparison (Daughney, C.J. (144) 161)
Metals; Apatite; Dissolution; Solubility; Phosphates; Lead; Cadmium (Valsami-Jones, E. (151) 215)
Metamorphism; Carbon dioxide; Cenozoic; Degassing; Orogenic belts (Kerrick, D.M. (145) 213)
Metasomatism; Basalt; Tholeiites (La Flèche, M.R. (148) 115)
Oxygen isotope; In situ analysis; UHP ultramafics; Dabie Mountains (Zhang, R.Y. (150) 161)
Methane; Natural gas; Isotope fractionation; Reaction kinetics; West Siberia; Pokur formation (Cramer, B. (149) 235)
Mg/Ca ratios; Ostracods; Lacustrine environments (Wansard, G. (146) 39)
Microdiorites; Ignimbrites; Lithic fragments; Granitoids; Dolerites; Magma chambers; Calderas; Taupo Volcanic Zone (Brown, S.J.A. (148) 21)
Mineral deposits; Isotopes; Igneous rocks; Magma contamination; Tertiary; East Greenland (Jensen, S.M. (150) 119)
Mineral surfaces; Crustal fluids; Chemical tracers; Spectroscopy (Ragnarsdottir, K.V. (151) 1)
Mineralization; Nitrate; Lysimeter; Nitrogen isotopes; Nitrification; Denitrification (Ostrom, N.E. (146) 219)
Model; Geochemical cycles; Cenozoic; Isotope; Carbon; Weathering (François, L.M. (145) 177)
Modeling; Apatite; He; Dating (Wolf, R.A. (148) 105)
Fluid–rock interaction; Greisenization; Mass transfer; Diffusion infiltration; East Kemptville (Halter, W.E. (150) 1)
Modelling; Reactive transport; KIRMAT; Kinetic dissolution; Transition State Theory; Aluminium speciation (Gérard, F. (151) 247)
Moine succession; Ammonium; Continental crust; Precambrian; Nitrogen cycle; Biogeochemistry; Stable isotopes (Boyd, S.R. (144) 257)
Molecular $\delta^{13}C$; Lake Erie; Anthropogenic P loadings; Carbon isotopes; Sediment cores (Ostrom, P.H. (152) 163)
Molecular dynamics; Simulations; NaCl solutions; High pressures; High temperatures (Brodholt, J.P. (151) 11)
Monazite; Matrix effects; SIMS chronometry; U–Pb isotopes; Geochronology (Zhu, X.-K. (144) 305)
Kerala Khondalite Belt; Age dating (Braun, I. (146) 65)
Xenotime; REE-partitioning; Hydrothermal experiments; Geothermometry (Andrehs, G. (149) 83)
Monosaccharides; Stable isotopic analysis; Carbohydrates; Gas chromatography; Combustion; Isotope ratio mass spectrometry; Asymmetric carbon center (Macko, S.A. (152) 205)
Moon formation; Earth accretion; Core formation; Siderophile elements; Tungsten isotopes (Kramers, J.D. (145) 461)
Multiple collector ICPMS; In-situ Os isotopic analysis; Iridosmine; Laser ablation (Hirata, T. (144) 269)

N dynamics; Glacier Bay, Alaska; N isotopes (Hobbie, E.A. (152) 3)
N isotopes; N dynamics; Glacier Bay, Alaska (Hobbie, E.A. (152) 3)
NaCl solutions; Molecular dynamics; Simulations; High pressures; High temperatures (Brodholt, J.P. (151) 11)
NaCl–KCl brines; K-feldspar metasomatism; Replacement antiperthite; Granulites; Charnockites (Harlov, D.E. (151) 373)
Nahcolite; Stable isotopes; O-18/O-16; C-13/C-12; Gaylussite (Mees, F. (146) 87)
Narryer Gneiss Complex; Geochronology; Zircon; Isotope dilution; Crystal fragment (Amelin, Y.V. (146) 25)
Natural analogue; Uranium deposit; Granite; Radionuclide (Min, M.Z. (144) 313)
Granite; Fracture fillings; Carbonates; Isotopes; Carbon; Oxygen (Reyes, E. (150) 293)
Natural gas; Methane; Isotope fractionation; Reaction kinetics; West Siberia; Pokur formation (Cramer, B. (149) 235)
Nb; Ta; Fractionation; Cambrian arc; Back arc; New Zealand; ICPMS (Münker, C. (144) 23)
Neodymium isotopes; Sm–Nd geochronology; Anorogenic granite; Hydrothermal alteration; Fluid–rock interaction; Corsica (Poitrasson, F. (146) 187)
Neon; Helium; Steady-state model; Rare gas; Mantle; Geochemistry (Moreira, M. (147) 53)
Neotectonics; Detrital aquifer; Thermal waters; CO_2; ^{18}O–*D*–^{13}C stable isotopes (Cerón, J.C. (149) 251)
New Caledonia; Gypsum; S isotopes; Sr isotopes; Rare earth elements (Toulkeridis, T. (145) 61)
New Zealand; Nb; Ta; Fractionation; Cambrian arc; Back arc; ICPMS (Münker, C. (144) 23)
Niger River; West Africa; Hydrogeochemistry; Laterites; Chemical weathering; Mechanical erosion; Mass balance; CO_2 consumption (Boeglin, J.-L. (148) 137)
Nitrate; Lysimeter; Nitrogen isotopes; Mineralization; Nitrification; Denitrification (Ostrom, N.E. (146) 219)

Sedimentary organic matter; Lake Superior; Particulate organic matter; Nitrogen isotopes; Carbon isotopes (Ostrom, N.E. (152) 13)

Nitrification; Nitrate; Lysimeter; Nitrogen isotopes; Mineralization; Denitrification (Ostrom, N.E. (146) 219)

Nitrobenzene; Surface catalysis; Reduction; Fe(II); Uranium; Magnetite; Lepidocrocite (Charlet, L. (151) 85)

Nitrogen; Diamonds; Carbon; Isotopes; Mantle (Cartigny, P. (147) 147)
terrestrial volatiles; rare gases; evolution: mantle; atmosphere (Tolstikhin, I.N. (147) 27)

Nitrogen cycle; Ammonium; Continental crust; Precambrian; Moine succession; Biogeochemistry; Stable isotopes (Boyd, S.R. (144) 257)

Nitrogen isotopes; Nitrate; Lysimeter; Mineralization; Nitrification; Denitrification (Ostrom, N.E. (146) 219)
Strontium isotopes; Water pollution; Food web; Salmon, Vermont (Harrington, R.R. (147) 281)
Sedimentary organic matter; Nitrate; Lake Superior; Particulate organic matter; Carbon isotopes (Ostrom, N.E. (152) 13)
Kerogen; bitumen; carbon stable isotopes; lead–zinc deposits; Peru (Spangenberg, J.E. (146) 1)

Noble gas; Core formation; Earth accretion; Carbon; Volatile; Early earth (Tingle, T.N. (147) 3)
Earth's interior; Isotope (Kaneoka, I. (147) 61)
Elk Hills field; Kern County, California; Ar-40/Ar-39; Thermal history; Alkali feldspar (Mahon, K.I. (152) 227)

Non-stoichiometry; Hornblende; Weathering; Dissolution rates; Leached layer; Surface alteration (Frogner, P. (151) 169)
Epidote; Kinetics; Weathering; Dissolution rates (Kalinowski, B.E. (151) 181)

North America; Isotopic ecology; Late Pleistocene mammals (Koch, P.L. (152) 119)

^{18}O–*D*–^{13}C stable isotopes; Detrital aquifer; Thermal waters; Neotectonics; CO_2 (Cerón, J.C. (149) 251)

O-18/O-16; Iceland; Rift zone; Oceanic crust (Gautason, B. (145) 275)
Stable isotopes; C-13/C-12; Gaylussite; Nahcolite (Mees, F. (146) 87)

Oceanic crust; O-18/O-16; Iceland; Rift zone (Gautason, B. (145) 275)
Leaching; Rare earths; Hydrothermal alteration; Hydrothermal vents; ODP site 504B (Bach, W. (151) 309)

ODP site 504B; Leaching; Rare earths; Hydrothermal alteration; Oceanic crust; Hydrothermal vents (Bach, W. (151) 309)

OIB; Lu–Hf isotopes; MORB; Plumes; Mass spectrometry (Nowell, G.M. (149) 211)

Olivine; Argon; Clinopyroxene; Partitioning; Ultra-violet laser ablation microprobe (Brooker, R.A. (147) 185)

Ophiolites; Seafloor; Seawater; Oxygen isotope; Sediments (Muehlenbachs, K. (145) 263)

Oranjekom; Anorthosite; Plat Sjambok; Koperberg Suite (Geringer, G.J. (145) 17)

Ordovician; Cambrian; Strontium; Isotopes (Denison, R.E. (152) 325)

Organic acid absorption; Alkali-feldspar dissolution rates (Oelkers, E.H. (151) 235)

Organic acids; Oxalate; Carbon isotopes; Whewellite; Diagenesis (Hofmann, B.A. (149) 127)

Organic carbon; Lower Proterozoic; Concretions; Sulphides; Carbonates; Black shale; Stable isotope; Sulphur; Diagenesis (Melezhik, V.A. (148) 61)
Hydrogen index; Oxygen-minimum zone; Preservation; Slope currents (Arthur, M.A. (152) 273)

Organic matter; Biodegradation; Carbon isotopes; Calcite; Oxygen isotopes; Salt domes; Sulphate reduction (Bechtel, A. (144) 1)

Orogenic belts; Carbon dioxide; Cenozoic; Degassing; Metamorphism (Kerrick, D.M. (145) 213)

Ostracods; Lacustrine environments; Mg/Ca ratios (Wansard, G. (146) 39)

Oxalate; Carbon isotopes; Whewellite; Diagenesis; Organic acids (Hofmann, B.A. (149) 127)

Oxygen; Granite; Fracture fillings; Carbonates; Isotopes; Carbon; Natural analogue (Reyes, E. (150) 293)

Oxygen isotope; Seafloor; Seawater; Ophiolites; Sediments (Muehlenbachs, K. (145) 263)
In situ analysis; UHP ultramafics; Metasomatism; Dabie Mountains (Zhang, R.Y. (150) 161)

Oxygen isotope composition; Herbivore teeth; Kenya (Kohn, M.J. (152) 97)

Oxygen isotope thermometry; Kamafugites; Clinopyroxene-magnetite pair (Sgarbi, P.B.A. (146) 115)

Oxygen isotopes; Biodegradation; Carbon isotopes; Calcite; Organic matter; Salt domes; Sulphate reduction (Bechtel, A. (144) 1)
Lau Basin; Magmatism; Subduction; Melting; Assimilation (Macpherson, C.G. (144) 177)
Geochemistry; Silicates; Laser fluorination; Quartz (Spicuzza, M.J. (144) 195)
Polymetamorphism; Fluids; Antarctica (Krylov, D.P. (147) 295)

Oxygen-isotope; Strontium-isotope; TAG hydrothermal deposit (Teagle, D.A.H. (149) 1)

Oxygen-minimum zone; Organic carbon; Hydrogen index; Preservation; Slope currents (Arthur, M.A. (152) 273)

Palaeozoic; Sr isotope geochemistry; Anhydrite; Pseudomorphs; Belgium (Dejonghe, L. (144) 63)

Paleoclimatology; Stable isotopes; Tropical cyclones; Hydrology (Lawrence, J.R. (144) 151)

Paleomagnetism; Eastern Mediterranean; Sapropels; Sediments; Diagenesis; Pyritization (Passier, H.F. (152) 287)

Partial CO_2 pressure; Hydrogeochemistry; Confined acquifers; Chemical components (Coudrain-Ribstein, A. (145) 73)

Partial annealing zone; Titanite fission-track; KTB (Coyle, D.A. (149) 117)

Particulate organic matter; Sedimentary organic matter; Nitrate; Lake Superior; Nitrogen isotopes; Carbon isotopes (Ostrom, N.E. (152) 13)

Partitioning; Argon; Olivine; Clinopyroxene; Ultra-violet laser ablation microprobe (Brooker, R.A. (147) 185)

Pb; Diffusion; Clinopyroxenes (Cherniak, D.J. (150) 105)

Pb isotopes; Techniques; Statistics (Powell, R. (148) 95)
Archaean; Unradiogenic; Age; Life (Kamber, B.S. (150) 19)

Pb–Sr isotopes; Geochemistry; Water dynamics; Trace metals (Luck, J.-M. (150) 263)
Pb-isotope; TIMS; ICP–MS; Sulphide; Rio Tinto (Pomiès, C. (144) 135)
Peru; kerogen; bitumen; carbon stable isotopes; nitrogen isotopes; lead–zinc deposits (Spangenberg, J.E. (146) 1)
Petrology; Geochemistry and Sr–Nd isotopes; Ultrapotassic rocks; Lamproite; Crustal contamination; Central Italy (Conticelli, S. (149) 51)
pH values; Elevated temperature–pressure conditions; Fluid–mineral equilibria (Roberts, S.J. (146) 171)
Phosphate; Rare-earth geochemistry; Phosphorites; Syngenetic precipitation (Ilyin, A.V. (144) 243)
Phosphates; Apatite; Dissolution; Solubility; Metals; Lead; Cadmium (Valsami-Jones, E. (151) 215)
Phosphorites; Rare-earth geochemistry; Syngenetic precipitation; Phosphate (Ilyin, A.V. (144) 243)
Phyllite; Ferrihydrite; Sorption; Uranium (Arnold, T. (151) 129)
Physical properties; Vitrinites; Chemical properties (Jiménez, A. (150) 197)
Piton de la Fournaise; Volatile; Water; Carbon; Melt inclusion; Degassing (Bureau, H. (147) 115)
Plat Sjambok; Anorthosite; Oranjekom; Koperberg Suite (Geringer, G.J. (145) 17)
Platinum; Hydrogen isotope ratios; Deuterium; Hydrogen isotopes (Hopple, J.A. (152) 321)
Playa lake; Bloedite; Early diagenesis; Epsomite; Salt precipitation sequences (Sánchez-Moral, S. (149) 189)
Plume–lithosphere interactions; Grande Comore volcanoes; Geochemistry; Isotopes; Heterogeneities; LoNd (Deniel, C. (144) 281)
Plumes; Carbon cycle; Mantle; Flux; Arcs (Marty, B. (145) 233)
Lu–Hf isotopes; MORB; OIB; Mass spectrometry (Nowell, G.M. (149) 211)
Pokur formation; Methane; Natural gas; Isotope fractionation; Reaction kinetics; West Siberia (Cramer, B. (149) 235)
Polyatomic species; Yttrium; Aqueous speciation; EXAFS; Water structure; REE (Ragnarsdottir, K.V. (151) 29)
Polycyclic aromatic hydrocarbon; $\delta^{13}C$; Creosote-contaminated site (Hammer, B.T. (152) 43)
Polymetamorphism; Oxygen isotopes; Fluids; Antarctica (Krylov, D.P. (147) 295)
Pore water; Biogeochemistry; Acetate; Carbon; Free energy (Egeberg, P.K. (149) 25)
Porphyry copper; Ar/Ar dates; Alteration; K-feldspar; Sericite; Biotite (Reynolds, P. (148) 45)
Post-depositional diagenesis; Mediterranean sapropels; Uranium; $^{230}Th/U$-series dating; Isochron (Severmann, S. (150) 317)
Potassium bicarbonate; Potassium carbonate; Raman spectroscopy (Frantz, J.D. (152) 211)
Potassium carbonate; Potassium bicarbonate; Raman spectroscopy (Frantz, J.D. (152) 211)
Potentiometry; Aquatic chemistry; Equilibrium constants; Thermodynamic data; Constant ionic medium method; Equilibrium analysis; Chemical modelling (Öhman, L.-O. (151) 41)
Rare earth elements; Lanthanum; Gadolinium; Hydrolysis; La–acetate complexes; Solubility; Thermodynamic properties (Deberdt, S. (151) 349)
Precambrian; Ammonium; Continental crust; Nitrogen cycle; Moine succession; Biogeochemistry; Stable isotopes (Boyd, S.R. (144) 257)
Precipitaion; Dissolution; Barite (001) (Bosbach, D. (151) 143)
Preservation; Organic carbon; Hydrogen index; Oxygen-minimum zone; Slope currents (Arthur, M.A. (152) 273)
Pressure; Mantle; Pyrope; Hydroxyl ion; Infrared spectroscopy (Withers, A.C. (147) 161)
Productivity; Equatorial Indian Ocean; Sediment; Geochemistry; Elemental-Ba; Biogenic-Al (Banakar, V.K. (147) 217)
Protoliths; Madagascar; Granulite-facies; Fluids; Stable isotopes (Boulvais, P. (150) 247)
Pseudomorphs; Sr isotope geochemistry; Anhydrite; Palaeozoic; Belgium (Dejonghe, L. (144) 63)
Pyrite; Weathering; Calcite; Sulfate (Hercod, D.J. (151) 259)
Pyritization; Eastern Mediterranean; Sapropels; Sediments; Diagenesis; Paleomagnetism (Passier, H.F. (152) 287)
Pyrolysis; Hydrocarbon gas; Type II kerogen; Isotope fractionation; Residence time (Lorant, F. (147) 249)
Pyrope; Mantle; Pressure; Hydroxyl ion; Infrared spectroscopy (Withers, A.C. (147) 161)

Quantitative models; Geochemical cycles; Mass balance (Lasaga, A.C. (145) 161)
Quartz; Geochemistry; Oxygen isotopes; Silicates; Laser fluorination (Spicuzza, M.J. (144) 195)
Quaternary paleoclimates; Fluid inclusion paleotemperatures; Death Valley (Lowenstein, T.K. (150) 223)
Quaternary studies; Speleothem; Strontium; Strontium isotope analysis; Uranium series dating; Tasmania (Goede, A. (149) 37)

Radionuclide; Uranium deposit; Granite; Natural analogue (Min, M.Z. (144) 313)
Raman spectroscopy; Weathering; Albite; Al-ordering (Frogner, P. (151) 161)
Potassium carbonate; Potassium bicarbonate (Frantz, J.D. (152) 211)
Rare earth elements; New Caledonia; Gypsum; S isotopes; Sr isotopes (Toulkeridis, T. (145) 61)
Cumulate rocks; Bushveld Complex; South Africa (Maier, W.D. (150) 85)
Hydroxides; Thermodynamic properties; Solubility (Diakonov, I.I. (151) 327)
Lanthanum; Gadolinium; Hydrolysis; La–acetate complexes; Solubility; Potentiometry; Thermodynamic properties (Deberdt, S. (151) 349)
Rare earths; Salt lakes; Geochemistry; Lake sediments; Trace elements; Evaporation (Volkova, N.I. (147) 265)
Water; Alteration; Low-temperature; Water–rock interaction; Ferrihydrite (Bau, M. (151) 293)
Leaching; Hydrothermal alteration; Oceanic crust; Hydrothermal vents; ODP site 504B (Bach, W. (151) 309)
Rare gas; Helium; Neon; Steady-state model; Mantle; Geochemistry (Moreira, M. (147) 53)
Rare gases; Mantle convection; Box models; Mantle geochemistry; Geochemical dynamics; Mantle tomography (Albarède, F. (145) 413)

Terrestrial volatiles; nitrogen; evolution; mantle; atmosphere (Tolstikhin, I.N. (147) 27)

Rare-earth geochemistry; Phosphorites; Syngenetic precipitation; Phosphate (Ilyin, A.V. (144) 243)

Reaction kinetics; Methane; Natural gas; Isotope fractionation; West Siberia; Pokur formation (Cramer, B. (149) 235)

Reactive transport; Modelling; KIRMAT; Kinetic dissolution; Transition State Theory; Aluminium speciation (Gérard, F. (151) 247)

Reactive transport model; Adsorption/desorption on goethite; Batch and column experiments; Complexation with carbonate ions; Kinetics; Uranium(VI) (Gabriel, U. (151) 107)

Recovery yield; Li isotope; Geochemical tracer; High-precision isotope analysis; TIMS; Li phosphate (Moriguti, T. (145) 91)

REE; Yttrium; Aqueous speciation; EXAFS; Water structure; Polyatomic species (Ragnarsdottir, K.V. (151) 29)

REE-partitioning; Monazite; Xenotime; Hydrothermal experiments; Geothermometry (Andrehs, G. (149) 83)

REEs; Sr-isotope; Carbonate; Sedimentary; Exhalative (SEDEX) (Davies, J.F. (144) 97)

Redhead ducks; Carbon isotope ratio; Fatty acids; Seagrass (Hammer, B.T. (152) 29)

Redox stratification; Heavy metal partitioning; Mangrove sediments; *Avicennia* (Clark, M.W. (149) 147)

Reduction; Surface catalysis; Fe(II); Nitrobenzene; Uranium; Magnetite; Lepidocrocite (Charlet, L. (151) 85)

Replacement antiperthite; NaCl–KCl brines; K-feldspar metasomatism; Granulites; Charnockites (Harlov, D.E. (151) 373)

Residence time; Transfer dynamics; Fluxes; Geochemical reservoirs; Geochemical cycles (Staudigel, H. (145) 153)
Hydrocarbon gas; Pyrolysis; Type II kerogen; Isotope fractionation (Lorant, F. (147) 249)

Reworking; Bauxite; Cookeite; Geochemistry; Rhaetian; Tuscany (Franceschelli, M. (144) 221)

Rhaetian; Bauxite; Reworking; Cookeite; Geochemistry; Tuscany (Franceschelli, M. (144) 221)

Rift zone; O-18/O-16; Iceland; Oceanic crust (Gautason, B. (145) 275)

Rio Tinto; Pb-isotope; TIMS; ICP–MS; Sulphide (Pomiès, C. (144) 135)

River waters; Erosion rates; Sao Miguel (Louvat, P. (148) 177)

Rocks; Extreme Nd isotope heterogeneity; Early Archean (Bennett, V.C. (148) 213)

SEM; Sulfide; Mackinawite; Sulfate; Bacteria; Surface; XPS; Spectroscopy (Herbert Jr., R.B. (144) 87)

SIMS chronometry; Matrix effects; Monazite; U–Pb isotopes; Geochronology (Zhu, X.-K. (144) 305)

SO_2 extraction; Sulfur isotopes (Park, Y.-R. (150) 191)

Salmon, Vermont; Nitrogen isotopes; Strontium isotopes; Water pollution; Food web (Harrington, R.R. (147) 281)

Salt domes; Biodegradation; Carbon isotopes; Calcite; Organic matter; Oxygen isotopes; Sulphate reduction (Bechtel, A. (144) 1)

Salt lakes; Geochemistry; Lake sediments; Trace elements; Rare earths; Evaporation (Volkova, N.I. (147) 265)

Salt precipitation sequences; Playa lake; Bloedite; Early diagenesis; Epsomite (Sánchez-Moral, S. (149) 189)

Samoa; Xenoliths; Fluid inclusions; Helium; Argon (Burnard, P.G. (147) 99)

Sample preparation; Isotopes; Mass spectroscopy; Hydrogen; Deuterium; Uranium (Vaughn, B.H. (152) 309)

Sao Miguel; Erosion rates; River waters (Louvat, P. (148) 177)

Sapropels; Eastern Mediterranean; Sediments; Diagenesis; Paleomagnetism; Pyritization (Passier, H.F. (152) 287)

Schwertmannite; *Thiobacillus ferrooxidans*; Goethite; Transformation; Lake Matsuo-Goshikinuma; Acid drainage (Childs, C.W. (144) 81)

Sea floor topography; Mantle convection; Mantle geochemistry; Mantle layering; Mantle transition zone (Davies, G.F. (145) 479)

Seafloor; Seawater; Oxygen isotope; Ophiolites; Sediments (Muehlenbachs, K. (145) 263)

Seagrass; Carbon isotope ratio; Fatty acids; Redhead ducks (Hammer, B.T. (152) 29)

Seawater; Water cycle; Hydrogen isotopes; Chondrite (Lécuyer, C. (145) 249)
Seafloor; Oxygen isotope; Ophiolites; Sediments (Muehlenbachs, K. (145) 263)

Sediment; Equatorial Indian Ocean; Geochemistry; Elemental-Ba; Biogenic-Al; Productivity (Banakar, V.K. (147) 217)

Sediment cores; Lake Erie; Molecular $\delta^{13}C$; Anthropogenic P loadings; Carbon isotopes (Ostrom, P.H. (152) 163)

Sedimentary; REEs; Sr-isotope; Carbonate; Exhalative (SEDEX) (Davies, J.F. (144) 97)

Sedimentary organic material; Dissolved organic carbon; $\delta^{13}C$ values (Fry, B. (152) 113)

Sedimentary organic matter; Nitrate; Lake Superior; Particulate organic matter; Nitrogen isotopes; Carbon isotopes (Ostrom, N.E. (152) 13)

Sedimentary sulfur; Speciation and isotopic composition; Everglades (Bates, A.L. (146) 155)

Sediments; Seafloor; Seawater; Oxygen isotope; Ophiolites (Muehlenbachs, K. (145) 263)
Eastern Mediterranean; Sapropels; Diagenesis; Paleomagnetism; Pyritization (Passier, H.F. (152) 287)

Sericite; Ar/Ar dates; Porphyry copper; Alteration; K-feldspar; Biotite (Reynolds, P. (148) 45)

Siderophile elements; Earth accretion; Core formation; Moon formation; Tungsten isotopes (Kramers, J.D. (145) 461)

Silicates; Geochemistry; Oxygen isotopes; Laser fluorination; Quartz (Spicuzza, M.J. (144) 195)

Simulations; Molecular dynamics; NaCl solutions; High pressures; High temperatures (Brodholt, J.P. (151) 11)

S isotopes; New Caledonia; Gypsum; Sr isotopes; Rare earth elements (Toulkeridis, T. (145) 61)

Slope currents; Organic carbon; Hydrogen index; Oxygen-minimum zone; Preservation (Arthur, M.A. (152) 273)

Sm–Nd geochronology; Neodymium isotopes; Anorogenic granite; Hydrothermal alteration; Fluid–rock interaction; Corsica (Poitrasson, F. (146) 187)

Sodium-acetate; Dissociation constants; Aqueous complex formation; Hydrothermal solutions (Fournier, P. (151) 69)

Soil type; Thermal-neutron intensities; Irradiation geometry; Gamma-ray neutron activation analysis (Shue, S.L. (144) 47)

Soils; Uranium; Isotopes; Thermal ionisation mass spectrometry (Taylor, R.N. (144) 73)

Solubility; Ettringite; Al geochemistry; Al-sulfates (Myneni, S.C.B. (148) 1)

Aluminum; Al–Si complexes; Stability constants; Thermodynamic properties; HKF parameters (Salvi, S. (151) 51)

Apatite; Dissolution; Phosphates; Metals; Lead; Cadmium (Valsami-Jones, E. (151) 215)

Rare earth elements; Hydroxides; Thermodynamic properties (Diakonov, I.I. (151) 327)

Rare earth elements; Lanthanum; Gadolinium; Hydrolysis; La–acetate complexes; Potentiometry; Thermodynamic properties (Deberdt, S. (151) 349)

Sorption; Phyllite; Ferrihydrite; Uranium (Arnold, T. (151) 129)

South Africa; Rare earth elements; Cumulate rocks; Bushveld Complex (Maier, W.D. (150) 85)

Speciation and isotopic composition; Sedimentary sulfur; Everglades (Bates, A.L. (146) 155)

Spectroscopy; Sulfide; Mackinawite; Sulfate; Bacteria; Surface; SEM; XPS (Herbert Jr., R.B. (144) 87)

Crustal fluids; Mineral surfaces; Chemical tracers (Ragnarsdottir, K.V. (151) 1)

Speleothem; Strontium; Strontium isotope analysis; Uranium series dating; Quaternary studies; Tasmania (Goede, A. (149) 37)

Sr isotope geochemistry; Anhydrite; Pseudomorphs; Palaeozoic; Belgium (Dejonghe, L. (144) 63)

Sr isotopes; New Caledonia; Gypsum; S isotopes; Rare earth elements (Toulkeridis, T. (145) 61)

Major elements; Trace elements; Watersheds; Geochemistry; Water dynamics; Hérault (southern France) (Petelet, E. (150) 63)

Sr-isotope; REEs; Carbonate; Sedimentary; Exhalative (SEDEX) (Davies, J.F. (144) 97)

Stability constants; Aluminum; Al–Si complexes; Solubility; Thermodynamic properties; HKF parameters (Salvi, S. (151) 51)

Stable carbon isotopic compositions; Compound specific isotope analysis; Fatty acids; Biomass burning; Atmospheric aerosols; C_4 and C_3 vegetation (Ballentine, D.C. (152) 151)

Stable isotope; Lower Proterozoic; Concretions; Sulphides; Carbonates; Black shale; Sulphur; Organic carbon; Diagenesis (Melezhik, V.A. (148) 61)

Stable isotopes; Tropical cyclones; Hydrology; Paleoclimatology (Lawrence, J.R. (144) 151)

Ammonium; Continental crust; Precambrian; Nitrogen cycle; Moine succession; Biogeochemistry (Boyd, S.R. (144) 257)

O-18/O-16; C-13/C-12; Gaylussite; Nahcolite (Mees, F. (146) 87)

Madagascar; Granulite-facies; Protoliths; Fluids (Boulvais, P. (150) 247)

Elk Hills field; Kern County, California; Ion probe; Thermal history, diagenesis (Mahon, K.I. (152) 257)

Stable isotopes; calcite cements; dilational jog; fluid inclusions; strike-slip fault system (Muchez, P. (145) 105)

Stable isotopic analysis; Monosaccharides; Carbohydrates; Gas chromatography; Combustion; Isotope ratio mass spectrometry; Asymmetric carbon center (Macko, S.A. (152) 205)

Standards; geochronology; $^{40}Ar/^{39}Ar$; calibration; errors (Renne, P.R. (145) 117)

Standard minerals; K–Ar dating; Unspiked technique; Intercalibration; Statistical treatment; Jacknife method (Charbit, S. (150) 147)

Statistical treatment; K–Ar dating; Unspiked technique; Standard minerals; Intercalibration; Jacknife method (Charbit, S. (150) 147)

Statistics; Pb isotopes; Techniques (Powell, R. (148) 95)

Steady-state model; Helium; Neon; Rare gas; Mantle; Geochemistry (Moreira, M. (147) 53)

Strike-slip fault system; calcite cements; dilational jog; fluid inclusions; stable isotopes (Muchez, P. (145) 105)

Strontium; Speleothem; Strontium isotope analysis; Uranium series dating; Quaternary studies; Tasmania (Goede, A. (149) 37)

Cambrian; Ordovician; Isotopes (Denison, R.E. (152) 325)

Strontium isotope analysis; Speleothem; Strontium; Uranium series dating; Quaternary studies; Tasmania (Goede, A. (149) 37)

Strontium isotopes; Weathering; Himalayan rivers (Harris, N. (144) 205)

Nitrogen isotopes; Water pollution; Food web; Salmon, Vermont (Harrington, R.R. (147) 281)

Strontium-isotope; Oxygen-isotope; TAG hydrothermal deposit (Teagle, D.A.H. (149) 1)

Subduction; Lau Basin; Oxygen isotopes; Magmatism; Melting; Assimilation (Macpherson, C.G. (144) 177)

Sulfate; Sulfide; Mackinawite; Bacteria; Surface; SEM; XPS; Spectroscopy (Herbert Jr., R.B. (144) 87)

Weathering; Pyrite; Calcite (Hercod, D.J. (151) 259)

Sulfate isotope; Evaporite; Triassic; Fluid-inclusion (Fanlo, I. (146) 135)

Sulfide; Mackinawite; Sulfate; Bacteria; Surface; SEM; XPS; Spectroscopy (Herbert Jr., R.B. (144) 87)

Sulfur isotope; Fractionation; Iron(II) sulfide; Manganese(II) sulfide (Böttcher, M.E. (146) 127)

Sulfur isotopes; SO_2 extraction (Park, Y.-R. (150) 191)

Sulphate reduction; Biodegradation; Carbon isotopes; Calcite; Organic matter; Oxygen isotopes; Salt domes (Bechtel, A. (144) 1)

Sulphide; Pb-isotope; TIMS; ICP–MS; Rio Tinto (Pomiès, C. (144) 135)

Sulphides; Lower Proterozoic; Concretions; Carbonates; Black shale; Stable isotope; Sulphur; Organic carbon; Diagenesis (Melezhik, V.A. (148) 61)

Sulphur; Lower Proterozoic; Concretions; Sulphides; Carbonates; Black shale; Stable isotope; Organic carbon; Diagenesis (Melezhik, V.A. (148) 61)

Surface; Sulfide; Mackinawite; Sulfate; Bacteria; SEM; XPS; Spectroscopy (Herbert Jr., R.B. (144) 87)

Surface alteration; Hornblende; Weathering; Dissolution rates; Non-stoichiometry; Leached layer (Frogner, P. (151) 169)

Surface catalysis; Reduction; Fe(II); Nitrobenzene; Uranium; Magnetite; Lepidocrocite (Charlet, L. (151) 85)

Synchrotron radiation; Fluid inclusion; Chemical composition; X-ray microfluorescence (Philippot, P. (144) 119)

Syngenetic precipitation; Rare-earth geochemistry; Phosphorites; Phosphate (Ilyin, A.V. (144) 243)

Ta; Nb; Fractionation; Cambrian arc; Back arc; New Zealand; ICPMS (Münker, C. (144) 23)
TAG hydrothermal deposit; Strontium-isotope; Oxygen-isotope (Teagle, D.A.H. (149) 1)
Tasmania; Speleothem; Strontium; Strontium isotope analysis; Uranium series dating; Quaternary studies (Goede, A. (149) 37)
Taupo Volcanic Zone; Ignimbrites; Lithic fragments; Granitoids; Dolerites; Microdiorites; Magma chambers; Calderas (Brown, S.J.A. (148) 21)
Techniques; Pb isotopes; Statistics (Powell, R. (148) 95)
Ternary surface complex; Adsorption; Carboxylate; Corundum; Lead (Boily, J.-F. (148) 157)
Terrestrial volatiles; rare gases; nitrogen; evolution; mantle; atmosphere (Tolstikhin, I.N. (147) 27)
Tertiary; Isotopes; Mineral deposits; Igneous rocks; Magma contamination; East Greenland (Jensen, S.M. (150) 119)
^{230}Th / U-series dating; Mediterranean sapropels; Uranium; Isochron; Post-depositional diagenesis (Severmann, S. (150) 317)
Thermal history; Fission track; Confined track length; Accelerator; ^{252}Cf (Yamada, R. (149) 99)
Elk Hills field; Kern County, California; Ar-40/Ar-39; Noble gas; Alkali feldspar (Mahon, K.I. (152) 227)
Thermal history, diagenesis; Elk Hills field; Kern County, California; Ion probe; Stable isotopes (Mahon, K.I. (152) 257)
Thermal ionisation mass spectrometry; Uranium; Isotopes; Soils (Taylor, R.N. (144) 73)
Thermal stress; Hydrogen isotope exchange; Cellulose (Krishnamurthy, R.V. (152) 85)
Thermal structure; Thickness of lithosphere; Composition of lithosphere; Continental lithosphere; Lithosphere (Rudnick, R.L. (145) 395)
Thermal waters; Detrital aquifer; Neotectonics; CO_2; ^{18}O–D–^{13}C stable isotopes (Cerón, J.C. (149) 251)
Thermal-neutron intensities; Irradiation geometry; Soil type; Gamma-ray neutron activation analysis (Shue, S.L. (144) 47)
Thermodynamic data; Aquatic chemistry; Equilibrium constants; Constant ionic medium method; Potentiometry; Equilibrium analysis; Chemical modelling (Öhman, L.-O. (151) 41)
Thermodynamic properties; Aluminum; Al–Si complexes; Stability constants; Solubility; HKF parameters (Salvi, S. (151) 51)
Rare earth elements; Hydroxides; Solubility (Diakonov, I.I. (151) 327)
Rare earth elements; Lanthanum; Gadolinium; Hydrolysis; La–acetate complexes; Solubility; Potentiometry (Deberdt, S. (151) 349)
Thickness of lithosphere; Thermal structure; Composition of lithosphere; Continental lithosphere; Lithosphere (Rudnick, R.L. (145) 395)
Thiobacillus ferrooxidans; Schwertmannite; Goethite; Transformation; Lake Matsuo-Goshikinuma; Acid drainage (Childs, C.W. (144) 81)
Tholeiites; Basalt; Metasomatism (La Flèche, M.R. (148) 115)
Thuringian basin; Altendorf feldspathic sandstone; Cathodoluminescence microscopy (Götze, J. (150) 43)
TIMS; Pb-isotope; ICP–MS; Sulphide; Rio Tinto (Pomiès, C. (144) 135)
Li isotope; Geochemical tracer; High-precision isotope analysis; Li phosphate; Recovery yield (Moriguti, T. (145) 91)
Titanite fission-track; Partial annealing zone; KTB (Coyle, D.A. (149) 117)
Trace elements; Salt lakes; Geochemistry; Lake sediments; Rare earths; Evaporation (Volkova, N.I. (147) 265)
Sr isotopes; Major elements; Watersheds; Geochemistry; Water dynamics; Hérault (southern France) (Petelet, E. (150) 63)
Trace metals; Geochemistry; Water dynamics; Pb–Sr isotopes (Luck, J.-M. (150) 263)
Coprecipitation; Codissolution (Bruno, J. (151) 277)
Transfer dynamics; Fluxes; Geochemical reservoirs; Residence time; Geochemical cycles (Staudigel, H. (145) 153)
Transformation; Schwertmannite; *Thiobacillus ferrooxidans*; Goethite; Lake Matsuo-Goshikinuma; Acid drainage (Childs, C.W. (144) 81)
Transition State Theory; Reactive transport; Modelling; KIRMAT; Kinetic dissolution; Aluminium speciation (Gérard, F. (151) 247)
Triassic; Evaporite; Fluid-inclusion; Sulfate isotope (Fanlo, I. (146) 135)
Tropical cyclones; Stable isotopes; Hydrology; Paleoclimatology (Lawrence, J.R. (144) 151)
Tungsten isotopes; Earth accretion; Core formation; Siderophile elements; Moon formation (Kramers, J.D. (145) 461)
Tuscany; Bauxite; Reworking; Cookeite; Geochemistry; Rhaetian (Franceschelli, M. (144) 221)
Type II kerogen; Hydrocarbon gas; Pyrolysis; Isotope fractionation; Residence time (Lorant, F. (147) 249)

U–Pb isotopes; Matrix effects; SIMS chronometry; Monazite; Geochronology (Zhu, X.-K. (144) 305)
UHP ultramafics; Oxygen isotope; In situ analysis; Metasomatism; Dabie Mountains (Zhang, R.Y. (150) 161)
Ultra-violet laser ablation microprobe; Argon; Olivine; Clinopyroxene; Partitioning (Brooker, R.A. (147) 185)
Ultrapotassic rocks; Petrology; Geochemistry and Sr–Nd isotopes; Lamproite; Crustal contamination; Central Italy (Conticelli, S. (149) 51)
Unradiogenic; Archaean; Pb isotopes; Age; Life (Kamber, B.S. (150) 19)
Unspiked technique; K–Ar dating; Standard minerals; Intercalibration; Statistical treatment; Jacknife method (Charbit, S. (150) 147)
Upper Earth; Earth–Moon system; Accretion (Javoy, M. (147) 11)
Uranium; Isotopes; Soils; Thermal ionisation mass spectrometry (Taylor, R.N. (144) 73)
Mediterranean sapropels; ^{230}Th/U-series dating; Isochron; Post-depositional diagenesis (Severmann, S. (150) 317)
Surface catalysis; Reduction; Fe(II); Nitrobenzene; Magnetite; Lepidocrocite (Charlet, L. (151) 85)
Phyllite; Ferrihydrite; Sorption (Arnold, T. (151) 129)

Isotopes; Mass spectroscopy; Hydrogen; Deuterium; Sample preparation (Vaughn, B.H. (152) 309)

Uranium deposit; Granite; Radionuclide; Natural analogue (Min, M.Z. (144) 313)

Uranium series dating; Speleothem; Strontium; Strontium isotope analysis; Quaternary studies; Tasmania (Goede, A. (149) 37)

Uranium(VI); Adsorption/desorption on goethite; Batch and column experiments; Complexation with carbonate ions; Kinetics; Reactive transport model (Gabriel, U. (151) 107)

Vapor pressure; Isotopic exchange; Water; Water vapor (Ingraham, N.L. (150) 287)

Vegetation burns; Bulk stable isotope analysis; Aerosol particles (Turekian, V.C. (152) 181)

Very low I in metamorphic and magmatic rocks; ICP-MS after pyrohydrolysis; Biologic accumulation in sediments; Hydrothermal transport (Muramatsu, Y. (147) 201)

Vitrinites; Physical properties; Chemical properties (Jiménez, A. (150) 197)

Volatile; Noble gas; Core formation; Earth accretion; Carbon; Early earth (Tingle, T.N. (147) 3)

Water; Carbon; Melt inclusion; Piton de la Fournaise; Degassing (Bureau, H. (147) 115)

Volatile flux; Helium isotopes; Icelandic plume; Degassing; Hydrothermal fluids (Hilton, D.R. (149) 173)

Volcanic gases; Atmospheric sulfur; Degassing (Graf, H.-F. (147) 131)

Water; Volatile; Carbon; Melt inclusion; Piton de la Fournaise; Degassing (Bureau, H. (147) 115)

Vapor pressure; Isotopic exchange; Water vapor (Ingraham, N.L. (150) 287)

Alteration; Low-temperature; Water–rock interaction; Rare earths; Ferrihydrite (Bau, M. (151) 293)

Water cycle; Hydrogen isotopes; Seawater; Chondrite (Lécuyer, C. (145) 249)

Water dynamics; Sr isotopes; Major elements; Trace elements; Watersheds; Geochemistry; Hérault (southern France) (Petelet, E. (150) 63)

Geochemistry; Trace metals; Pb–Sr isotopes (Luck, J.-M. (150) 263)

Water pollution; Nitrogen isotopes; Strontium isotopes; Food web; Salmon, Vermont (Harrington, R.R. (147) 281)

Water solubility; D/H fractionation; Basaltic andesite (Pineau, F. (147) 173)

Water structure; Yttrium; Aqueous speciation; EXAFS; REE; Polyatomic species (Ragnarsdottir, K.V. (151) 29)

Water vapor; Vapor pressure; Isotopic exchange; Water (Ingraham, N.L. (150) 287)

Water–rock interaction; Water; Alteration; Low-temperature; Rare earths; Ferrihydrite (Bau, M. (151) 293)

Watersheds; Sr isotopes; Major elements; Trace elements; Geochemistry; Water dynamics; Hérault (southern France) (Petelet, E. (150) 63)

Weathering; Strontium isotopes; Himalayan rivers (Harris, N. (144) 205)

Geochemical cycles; Cenozoic; Model; Isotope; Carbon (François, L.M. (145) 177)

Raman spectroscopy; Albite; Al-ordering (Frogner, P. (151) 161)

Hornblende; Dissolution rates; Non-stoichiometry; Leached layer; Surface alteration (Frogner, P. (151) 169)

Epidote; Kinetics; Dissolution rates; Non-stoichiometry (Kalinowski, B.E. (151) 181)

Pyrite; Calcite; Sulfate (Hercod, D.J. (151) 259)

West Africa; Niger River; Hydrogeochemistry; Laterites; Chemical weathering; Mechanical erosion; Mass balance; CO_2 consumption (Boeglin, J.-L. (148) 137)

West Siberia; Methane; Natural gas; Isotope fractionation; Reaction kinetics; Pokur formation (Cramer, B. (149) 235)

Whewellite; Oxalate; Carbon isotopes; Diagenesis; Organic acids (Hofmann, B.A. (149) 127)

X-ray adsorption fine structure (EXAFS) spectroscopy; Antimony(III)-chloride solutions; Aqueous complexation; Hydrothermal solutions (Oelkers, E.H. (151) 21)

X-ray microfluorescence; Fluid inclusion; Chemical composition; Synchrotron radiation (Philippot, P. (144) 119)

XPS; Sulfide; Mackinawite; Sulfate; Bacteria; Surface; SEM; Spectroscopy (Herbert Jr., R.B. (144) 87)

Xenoliths; Samoa; Fluid inclusions; Helium; Argon (Burnard, P.G. (147) 99)

Xenotime; Monazite; REE-partitioning; Hydrothermal experiments; Geothermometry (Andrehs, G. (149) 83)

Yttrium; Aqueous speciation; EXAFS; Water structure; REE; Polyatomic species (Ragnarsdottir, K.V. (151) 29)

Zircon; Geochronology; Isotope dilution; Crystal fragment; Narryer Gneiss Complex (Amelin, Y.V. (146) 25)